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# The Cleveland Medical Journal

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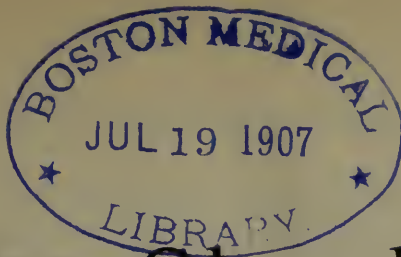
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# The Cleveland Medical Journal

VOL V

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No 1

## The Paris Congress of Tuberculosis, 1905

ORGANIZATION, BOVINE TUBERCULOSIS, EARLY DIAGNOSIS,  
ISOLATION, DISPENSARIES.

BY JOHN H. LOWMAN, M. D.

Professor of Medicine, Western Reserve University, Cleveland, O.

The Paris Congress was an expression of the sentiment of the world concerning tuberculosis. Of no disease has so much been written and so much said as of this great chronic epidemic. The information concerning it is in hospital, government and municipal reports, in the medical and lay press, in the proceedings of scientific societies and in numerous communications from physicians, architects, engineers, health officers, actuaries, veterinarians and scientific and philanthropic men. To comprehend all this vast material is beyond the grasp of any one person. It will require the combined effort of a commission of experts to digest and report on the material now accessible. I shall content myself with a rapid survey of the work of the last congress, its plan of organization and its place in the tuberculosis conflict and then consider in greater detail two or three of the more important subjects which engaged the interest of the members.

The congress was divided into four sections. viz: Medicine, Surgical Pathology, Preservation of Children and Protection of the Adult. Under these four heads were discussed all the various stages and forms of the disease. Innumerable varieties of opinion were expressed and it seemed at times as if there was direct antagonism between the members, but in every instance a common ground was found for all and the final conclusions were as a rule unanimous.

Among the weighty subjects discussed was the question of the diverse forms of tuberculosis; that is whether the human and bovine represented one or two types of micro-organisms and whether they were inter-transmissible.

Early diagnosis was discussed *in extenso* and Dispensaries and Sanatoria threatened to be discussed *in eterno*.

The preservation of children, the care of pupils in schools, the separation of children from tuberculizing centers by taking them into the country, the physical condition of the children of tuberculous parents and the maritime sanatoria for tuberculous bone disease were extensively considered in the section for children.

The unsanitary house, the rural exodus, the over population of cities, the over crowding in rooms, the preservation of open spaces, parks, courts, etc., the opportunity of support from workmen's unions, the cleanliness of houses, shops and public places, the instruction needed by the dangerous trades, the advantages of sick benefit societies and the duties of health boards in hygiene and sanitation received each in turn careful and painstaking attention.

Many special subjects of narrower significance such as ileo-caecal tuberculosis, operative interference in tubercular meningitis, treatment of osteo-arthritis, modern methods of treating lupus, Finsen-therapy, helio-therapy, thalasso-therapy, sero-therapy, especially the last, were considered in special papers.

There was constant general discussion of each point and an active interest was shown by every one. The meetings were well attended and often it was impossible for the president of a section to find time for every one who wished to participate in the discussion. The overwhelming preponderance of French delegates imposed on the meeting the almost exclusive use of the French language and although a few papers were read in German and English the discussion that followed was almost entirely in French.

An admirable feature of the organization was the preparation of two volumes of reports and summaries, copies of which were given to each delegate when he registered. The reports had all been made long before the meeting and were published in detail in three languages so that every one could follow the speakers closely. This insured the closest attention on the part of the audience. The summaries were short résumés of other papers and gave the substance of the communications. In this way every



one could become completely conversant with the ideas of the speakers even before they began to read or speak. I cannot too strongly commend this procedure. It certainly contributed largely to the success of the meetings.

In addition to the official reports by selected and distinguished men there were many government reports as to the state of tuberculosis in different countries, as well as many monographs and communications. Catalogues and maps were freely distributed every day. These documents as well as the exposition of tuberculosis and hygiene that was constantly open and freely inspected put one in close relationship with the whole subject and made each one feel that he was actively in co-operation with the great assembly which was so seriously considering this grave and important subject.

It is not however, without interest to medical men present—more than the laity perhaps—to know the sense and conclusions of the congress on some of the points which I have incidentally mentioned. You will well remember the intense interest that was excited by Koch, the discoverer of the tubercle bacillus, in his address at the London Congress for Tuberculosis three years ago. He there stated that bovine and human tuberculosis were due to absolutely different types of bacilli and were not interchangeable, and that it was not necessary for man to protect himself from the tuberculosis of cattle. This attitude was vigorously combated at the time by English and French savants, and long before the opening of the Paris Congress the question had been settled at least to the extent that several cases of tuberculosis in man had been definitely traced to cattle and many calves had become tuberculous through exposure to the human bacillus, Kossel of Berlin, Arloing of Lyons and Ravenel of Philadelphia made the reports.

Arloing's exposition of his position is clear and forceful. He holds that there is but one type of the tubercle bacillus and that it takes on different characteristics according to the media in which it lives. That the bovine bacillus is the most active, the human bacillus less so, that the avian and piscine varieties are still less active and the form found in lower cold blooded animals very feeble.

The human bacillus varies also under varying conditions. Opinions vary as to the exact nature of scrofula. The earlier pathologists held that it was an independent disease and that although it enfeebled the constitution and predisposed the child

to tubercular and other infections as well, it was totally distinct from tuberculosis. This view has never been abandoned especially in Germany. On the other hand, Arloing has produced tuberculosis in guinea pigs and rabbits (more easily in the former than in the latter) from the enlarged glands of scrofulous patients. Harbitz's masterly work in Copenhagen seems to prove also that scrofulous are tuberculous glands. The infection is however mild and the bacillus if present must be very much attenuated. In surgical tuberculosis the infection is very weak and shows but little tendency to extend to the viscera. So that children with bone tuberculosis are carefully protected from association with pulmonary cases and are never housed in the same institution. A child with hip disease rarely develops phthisis from himself but can get consumption from a new infection. This fact is repeatedly proven notwithstanding the statement that a certain degree of immunity from active tuberculosis exists in bone cases. Lupus is very mildly infectious and scrapings from lupoid ulcers often fail of infecting guinea pigs. Lupus, scrofula, bone and tubercula glands represent the attenuated forms of the tubercle bacillus in gradually increasing strength, until we get to the tubercular glands which though inactive may contain according to Harbitz, very virulent forms.

The series of attenuated and virulent forms starts with the cold blooded animals and passes through frogs, fishes, birds and the glands and bones of men to the bacillus found in consumption and to bovine tuberculosis which is the most active of all.

There is a tendency to return to the views of the old French pathologists Laennec, Bayle, Robin who described granulation tuberculosis and yellow infiltration and declared for the unity of tuberculosis. This view Virchow combatted in substituting his dual theory which Koch's discovery in turn refuted, bringing the scientific world back to Laennec's position. Some observers now apparently hold that the grey and gelatinous infiltration is not due to the living bacillus but can be induced by various agents. Behring says that his "rest bacillus," which is not a living substance and which is not reproduceable, causes the granulation Tuberculosis or *granulie* of Laennec. The general opinion is now that all the tubercular processes in the lung are one in kind and pass insensibly one to the other; but there are many facts that must still be harmonized. Arloing's position is that if we study the varieties of the bacillus from the standpoint of their similarities rather than from the standpoint of their differ-

ences we see so many points of resemblance that we are forced to the conviction that they are simply varieties of one type.

Kossel and Ravenel, the German and American observers, leaned distinctly to the theory of the two distinct types which the experiments of Theobald Smith seem to establish. It is however a question merely of how widely varieties may differ in their characteristics before being considered distinct types. As to the susceptibility of both animals and men to both the bovine and human bacillus there is now no doubt and the only relic of the discussion is as to the frequency of the bovine infection in man and the human infection in animals. The result of the work on this subject under the Imperial Health Bureau of Berlin is that the bacillus of the bovine type is not without danger for man, especially for young children.

The Congress after having heard the exposé of the various works relative to the question, declared *that it was necessary to defend oneself not only against human tuberculosis but also against bovine tuberculosis; that the contagion is carried mainly through the air and that society should protect itself from this malady by hygiene and cleanliness.* This general opinion was embodied in a resolution.

Tuberculosis is not hereditary, but is contracted through association. Nevertheless the children of tuberculous parents are especially susceptible to the disease. They present certain characteristics that are sufficiently common to constitute what is known as the *phthisicus habitus*. This phthisical habit of the older writers is one element in the consideration of the question of early diagnosis which received special attention at the Congress in the papers of Mariani, Achard and Williams. The candidates for tuberculosis often show a distinct morphology of the body; a long, narrow, flat or cylindrical thorax; the supra- and infra-clavicular spaces are depressed, Louis' angle is pronounced and the scapulae winged; the constitution is feeble, the skin thin and transparent, and the superficial veins visible, the hair and eyes are light and the eye lashes long and delicate; the stigmata of scrofula are present and also muscular dystrophies. The coincidence of a moderate number of these characteristics in one individual is sufficient ground for suspicion that he is a victim directly or indirectly of the bacillus of Koch or its toxins. Mariani mentions in addition to the body changes three signs which can aid us in recognizing the existence of an early stage of the disease at a time when it is possible to prevent its extension. 1:



The general condition of a child who grows thin and pale, without appreciable cause and whose muscles become flaccid and for which conditions his growth or school does not give a sufficient reason. 2: The presence in children of the micropoliadeny of Legroux. 3: The hypertrophy of the tonsils and the presence of adenoids in the naso-pharynx of a tuberculous nature, as Dieulafoy has demonstrated, and which constitute very often the first stage of a cervical glandular tuberculosis destined to extend to the lungs.

Glands that become the seat of tuberculosis enlarge and protect by the action of the internal cellular contents the system in general against invasion. This hyperplasia of the glands passes on to sclerosis and the glands become smaller and less effective as agents of defense. Thus, Legroux maintained that the small glands constituted a symptom as well as a weakness, and as these glands are large in the predisposed young and gradually grow smaller as adolescence approaches an explanation is thus suggestive of the frequency of tuberculosis at the end of childhood. On the other hand it must be remembered that the youths of 15 to 18 have just begun to frequent the shops and public places where contagion is more probable than the chances of infection are much more frequent for them than in the years immediately preceeding their leaving school.

The acquired predispositions are more definite and when adjoined to a phthisical morphology are more certain diagnostic signs. Among these signs we can cite emaciation, adenoids, pain, neuralgias, arthralgias, anaemia, dyspepsia, achlorydia, tachycardia, low arterial tension, enlarged spleen, unilateral mydriasis, Thompson's gingival margin, fever, paroxysmal sweating, cough, dyspnoea, amyotrophy and haemoptysis.

The positive signs are those elicited by auscultation, percussion, radioscopy, and most positive of all, almost pathognomonic in fact, is the presence of the tubercle bacillus.

It is not necessary nor is there time to enter into the discussion of all these subdivisions, but reference will be made cursorily to a few of them.

Dyspepsia frequently precedes the focal manifestation of tuberculosis. It may be manifested by simple anorexia which rebels against all treatment. There may also be the sense of weight and distress after eating that accompanies achlorydia or the gnawing sensation and acute pains after or before eating that suggest, as Marfin has shown, hyperchloridia; all forms are in-

tractable under treatment and may precede phthisis for a year or more, Chlorotic anaemia with indigestion and emaciation should always suggest the strong possibility of tuberculosis. Thyroidine and thyroid extract will increase the chlorohydric acid in a stomach in which it is lacking. Whether the thyroid gland has any participation in consumption or not is undetermined. Turbin first noted the tumefaction of the thyroid gland in early phthisis and atrophy of the gland later. The observations of Charrin show that animals deprived of their thyroids are more susceptible to tuberculosis. One can imagine a disthyroidism which may bring about failure of the secretion even if there is no apparent enlargement of the gland.

Tachycardia has long been regarded as an early sign of tuberculosis. Long before physical signs or fever show themselves. According to Besancon this is due to the pressure on the vagus by the peribronchial glands, and is in reality an irritation of the vagus. The pulse is weak, rapid, and the heart asystolic. There is a condition of cardiac erethism and when the pressure is low the pulse has the characteristics of a Corrigan pulse. It does not increase on the change of position of the patient and will suddenly augment without apparent cause. This symptom may precede by many months the local out-break. With tachycardia there is also a very low arterial tension. A persistent low arterial pressure is a very significant symptom and is doubtless due to the influence of the toxins on the vasomotor center. This relief of obstruction to the out-flowing blood current is sometimes given as the cause of the tachycardia. The heart finding no resistance to its efforts runs away. We have too many examples in influenza and typhoid fever of low pressure and slow pulse to accept this explanation. It is more reasonable to call in the vagus and explain the rapid pulse as due to a neuritis of the pneumogastric caused by pressure of intrathoracic glands or by direct effect of the toxins. A constant low tension is strongly suspicious of tuberculosis and when associated with a rapid pulse the suspicion is emphasized.

The susceptibility of the patient to changes of temperature is very marked in tuberculosis. Daremberg demonstrated that a walk of one hour will frequently cause a rise of one degree. A change of one degree is often noticed during the catamenia notwithstanding repose during that time. Incontestably the thermometer is an invaluable aid in diagnosis and systematic observation should be made after exercise in all suspected cases. Its



value during convalescence when the patient commences to take up his exercise is undoubted and need not be discussed here. Landouzy described a group of pretubercular fevers that resemble typhoid fever. It is not rare to meet incipient cases of pulmonary tuberculosis that give a history of having had typhoid or malarial fever. In fact it is sometimes exceedingly difficult without unusual and exact scientific methods to make a differential diagnosis. The rapid pulse, dyspnoea and rapid respiration, the relation of pulse and respiration, the diminished respiratory murmur and the fever curve must all be taken very carefully into consideration in approaching a conclusion. There has been an attempt to show that the fever in tuberculosis is easily provoked by the injections subcutaneously of small quantities of physiological serum. Those who have made the experiments find a rise more frequently in anaemic cases, and in pernicious anaemia a sharp rise, that continued for several hours, has been several times observed. But as far as tuberculosis is concerned the experiment must be considered as of no value. The consumptive does not necessarily have fever. When continuous it denotes progress of the process or a mixed infection, and when occasional some accident or strain. The patient with a fever should recline. There are but few exceptions to this rule.

In tuberculosis one observes amyotrophy localized in the muscles most near to the tuberculous focus. It is important not to confound simple muscular atrophy or weakness and flaccidity with it. When amyotrophy is present the muscle diminishes in volume considerably and shows the peculiar quantitative and qualitative reactions. Cecconi claims to have seen these changes often preceding an explosion of tubercular symptoms. Their seat is varied, they may be general or diffuse but usually strike certain groups of muscles. Sometimes symmetrical, sometimes unilateral one group of muscles after another will be invaded insidiously, progressively, slowly and continuously. The alteration of the muscles shows itself by deformities, functional disorders, modifications of their mechanical and electric excitability. The evolution of this atrophy is coincident with the subjacent lesions and is more manifest usually when the lesion is most advanced. The pathogenesis of amyotrophy rests in the alteration of the nerve filaments of the plexus which makes itself felt in the spinal cord, either by a reflex action or by retrograde degeneration.

One was impressed by the effort to get back of the commonly



received signs of disease. \*The increasing pessimism as to the ultimate cure of phthisis has forced the physician to examine the dynamic as well as the static conditions of the organs. He is not content to study the modifications of their anatomy but to make this exploration more penetrating, to make certain operative procedures if necessary to interrogate the function and to act often after the manner of an experimenter. In order to establish the diagnosis he calls to his aid chemistry, physics, physiology, bacteriology and each one of these sciences furnishes him with new armaments.

It is the unanimous opinion of practitioners that the external manifestations of tuberculosis are much more easily and surely cured the earlier they are discovered, moreover their early destruction has the double advantage of reducing to the minimum the dangers of generalization for the individuals and of contamination for his fellows. As to pulmonary tuberculosis, which surpasses all others in importance and extent, the early diagnosis brings great advantages for treatment and individual prognosis but especially for social prophylaxis.

To make an early diagnosis of tuberculosis is in theory to recognize the lesions at their start. But the reality is far from this ideal. How too often to make an early diagnosis (for varied and perfect are many of the means now employed) is simply to unveil the lesions still limited in extent but relatively advanced in their evolution. In reality tuberculosis is a disease which proceeds by many stages. Its germ is wide spread. On many occasions in his existence man has met and combatted it, and when he has allowed it to gain the advantage and he has become really an invalid it is only after having been subjected to many offences, of which the various organs retain more or less marked traces. To unmask these earlier attacks—that is the true object of the diagnosis *praecox*. Only too often tuberculosis is recognized in its last and decisive advance and a diagnosis made even at the beginning of this final attack is already relatively late. At this moment when the practitioner cannot afford to commit the slightest error or lose an instant it is more important than ever to establish quickly the true nature of the illness.

Among the probable signs the leucocytosis often seen in tuberculosis has proven disappointing. The leucocytic equilibrium is so easily disturbed that accidents of all kinds can influence it. As an early sign it cannot be relied upon. The presence of lym-

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\*ACHARD; EARLY DIAGNOSIS.

phocytes in the pleural sacks is often associated with tubercular pleurisy and has for sometime been accepted generally as of diagnostic value. These cells will however preponderate from other causes, but because tuberculosis is by far the most frequent excitant of the transudate the coincidence of the lymphocytes in the fluid and tuberculosis has been very frequent. Thus while an excess of these cells in the fluid may be strongly suggestive it is not by any means positive.

The diazo reaction of Ehrlich gives very often a positive reaction in tuberculosis. But this is usually in the acute advances or in the later or chronic stages and has but little value in the prepulmonary state as a factor in early diagnosis. Moreover, it is found so often in other conditions that its advantage as a positive diagnostic sign is much compromised.

Tessier of Lyons declares that albuminuria is at times a revelation of the presence of tuberculosis. Such an albuminuria is inconstant, irregularly cyclic, more abundant in the morning and accompanied with phosphaturia. Tessier would not imply that the evolution of tuberculosis is a necessity for in a hundred cases he has seen tuberculosis follow only in twenty instances. It is probably a light interstitial irritation of the kidney due to poison independent of the bacillus but the fact is none the less important and should attract the attention of clinicians. A minute analysis of the urine, the state of the arterial tension and the heart, the urea elimination enables one to differentiate these albuminurias from those due to a lesion of the kidney. We may mention also the excess of salts in the urine of the tuberculous. This demineralization is inconstant but frequent and can serve as one of the suspicious signs.

Many investigators have studied the chemistry of the expired air. According to them the activity of the exchanges of gases is a general fact in cases of tuberculosis. While the respiratory capacity of the lungs may be diminished the compensatory suractivity develops an excess of gases. Many claim that the respiratory quotient is always high. That is the carbonic acid in excess and that this indicates an active internal combustion. Charrin however, demonstrated that the respiratory quotient was normal in stationary cases, and high only in advancing or advanced cases. It is a procedure most assuredly full of interest and doubtless when carefully studied may furnish much information that may profit even general pathology. The technique is somewhat complicated and demands many precautions and is beset



with many difficulties. It is claimed however, that even in the pretubercular the results are significant; but at the best it can only be considered now as a premature and not an early sign.

The examination of the chest has always been the adopted method of determining the diagnosis and Brouardel has attempted to supplement the known methods by what he calls pneumography. In the normal chest the pneumographic tracing consists of four lines which correspond to the inspiratory rise, the line of the full chest, the expiratory descent and the horizontal line of rest. In tuberculosis the fourth line corresponding to the emptied lung is lacking and the line of expiration is prolonged in a manner that takes its place. Letulle has contradicted these tracings and says that the respiratory rhythm is too irregular to draw any conclusion from and that the tracing presents nothing especially characteristic.

At the tuberculosis dispensary of the Beaujon Hospital, an apparatus devised by Grehant, is employed to estimate the pulmonary capacity. The instrument is sensitive and the technique of its operations delicate, but when operated with accuracy is very useful. It aims to establish the fact that bacillosis diminishes the capacity, that is the interior volume of the lungs, by the development of tubercle, the coincident congestion and the changes which invade the territory attacked. Let a very progressive diminution of the respiratory capacity of the lungs constitute a good diagnostic sign at the commencement and a good prognostic sign later. Careful records of patients are kept at the dispensary, which is the most scientific one in Paris, and the claim is reiterated that a diagnosis is possible before definite physical signs appear. They repeatedly make the diagnosis by the Grehant instrument and think that they can depend on their conclusions.

The exact method of diagnosis is the demonstration of the presence of Koch's bacillus. There are but few chances of error in this method, though some times the bacillus lives as a saprophyte in the upper air passages of sound individuals. Another source of error is the smegma bacillus which is acid resistant and resembles the tubercle bacillus morphologically. There have been many improvements in the culture of the bacillus which in the beginning troubled Koch and his immediate followers, so that now the bacillus is occasionally found in the blood but this is rare and never at the commencement of chronic tuberculosis. Joasset has perfected the methods of detecting bacillaemia by testing the blood clots and thus gathering and concentrating the bacilli. He



recognizes this serious complication by the polipnoea, irregular fever and the albuminuria, and believes that the bacillus reaches the blood by way of the mesentary through intestinal ulcerations.

Chlorosis has been studied by Landouzy and Labbé and a form of tuberculosis chlorosis described and reported. This type is more typical, with the pale and swollen facies, the cardiovascular souffles, the palpitations, dyspeptic symptoms and the ordinary blood findings of chlorotic anæmia which is often only a tuberculosis under the mask of anæmia. In addition to coming from a tuberculous stock these cases have frequently presented some bacillary manifestations. At the epoch of puberty the chlorosis appears and some years later pulmonary tuberculosis. In some instances the tuberculine reaction has demonstrated the presence of latent tuberculosis. These two authors claim that this conception is not purely doctrinal but that it leads to practical conclusions. In diagnosing a bacillary chlorosis you can proceed from a mere probability or premature opinion to a prompt and more efficient therapy.

I must pass hastily over such signs as the gingival margin, parixysmal sudation, the slight, dry insistent cough, early, subjective dyspnoea, the absence of the Litten phenomenon, Granchet's inspiratory murmur, the oral râle, Murat's subjective bronchophony, unilateral mydriasis, obscure polioneuritis, (especially the intercostal form) expansion of Mohrenheim's fossa, the refinements of percussion and auscultation, radioscopy, the tuberculine reaction, splenomegaly and spirometry.

The effort to secure an early diagnosis has thus forced physicians back of the ordinary, conventional methods into the domain of experimentation, and although no new device has been definitely established the spirit is encouraging and the effort should be supported until we have so developed physical signs and pathological problems that an early diagnosis will not be a specious but a veritable diagnosis *praecox*. There is of course some cause for the morphology of the child with the tuberculous habit. The line of defense against the toxins is strong enough to prevent a general infection but not strong enough to prevent modification of the growth and development of the body. If the second defences of the tissue and glands are sufficiently resistant the disturbances will proceed no further than an enfeebled constitution which will increase in strength as the years go on. As the secondary defences weaken by sclerosis of the glands, according to Legroux, or through the loss in protecting power of say

Behring's curative principles (which he has recently announced) or through other agencies which are, like the above, largely problematical in character and function, the constitutional resistance gradually breaks down and these functional disturbances of stomach, vessels, vaso moter centers, respiration and blood, which we have just been discussing make their appearance. And after a more or less prolonged period comes the explosion on the lungs, and we have the beginnings of a chronic and usually incurable pulmonary tuberculosis and the citadel may be said to be taken. When by the methods of a veritable early diagnosis we can discern the true nature of these functional disturbances and have so deciphered them that we can have not merely a premature but an accurate idea of their etiology, be it specific, constitutional or social, then we shall be in a position to cure as well as to prevent this vicious social state of tuberculosis. But so long as we confine ourselves to discovering the third and final state when the natural protection of the body has disappeared our progress will be painful and slow. At present it is necessary to base a diagnosis on the changes in the anatomical structure. Is it possible to base the diagnosis on the changes in physiological function? There is a wide difference, as Heubner remarked in his paper, between infection and the disease from a practical standpoint, howsoever they may be allied from the biological standpoint. In this interim the function of many organs is modified. Often these changes present nothing characteristic and can be referred to fatigue, overstrain or slight general disturbances. Were it possible to codify the changes so that their inter-relationship could be understood, and their peculiar characteristics recognized, their true significance would be seen and an early diagnosis logically result. It is this thought which is the impetus that forces so many observers to scrutinize with extraordinary care the hitherto considered casual signs. Many of the conclusions are premature and some inaccurate, but the labor has not been in vain.

The discussions generally revealed an earnestness and an enthusiasm that could have proceeded only from a philosophic conception of the immense difficulties and supreme importance of the subject. This same broad spirit was evidenced in every section. The smaller and more technical matters gave way to the greater scientific and social ones. As Granchet said tuberculosis is a condition and not simply a disease and can only be eradicated by the removal of social causes.

There were many subjects discussed in the children's and the



social section which could be considered here with interest did time permit. Among many I shall mention the *preservation of the child against tuberculosis in his family*, by Marfan; *the control of tuberculosis in the family*, by Heubner; *the protection of the child in school*, by Mery; *maritime sanatoria* for bone tuberculosis by Armaingaud. In the social section there were papers on the economic conditions in the social etiology of tuberculosis, insurance, the sphere of the sanatoria and dispensaries in the conflict with tuberculosis, the sanitation of the dwelling, disinfection and so on.

First let me call attention to Newsholm's report on the isolation of the tuberculous individuals in the advanced state. The death rate in pulmonary tuberculosis has steadily declined in many countries and large cities since 1860. England shows a decline of 52 percent; Scotland 42 percent; Massachusetts 56 percent; Prussia 38 percent; Berlin 38 percent. France and Paris show very little decline in the death rate from tuberculosis. A careful study of the social, economic and sanitary conditions which have been historically associated with these facts should enable us to cast some light upon them and see some explanation for them and thus arrive at certain conclusions for controlling this disease which still remains the most serious danger to mankind. There has been and still is the widest difference of opinion as to the teaching of facts. There are three important theories that have been promulgated, and they may be roughly designated as the methods of isolation, of sanatoria and of dispensaries, or the English, German and French methods. No one method predominates in any of these countries, but isolation has long and almost unconsciously been practiced in England and the improvement of the social conditions has been so vigorously advocated in France and the sanatoria are so conspicuously a feature in Germany, that the three systems are closely associated with these various countries and are characteristic of them. The sanatorium is so prominent a feature that many people everywhere consider it the only method, a position so precarious that it is not advocated even in the home of the sanatorium.

The English reviewer first showed the comparative tables of cost of living in 1880 and 1900; of scales of wages, number of paupers of urban and rural population and death rate of tuberculosis. He was from these tables unable to prove any very close relation between his figures. The cost of living in England has diminished about twenty-five percent in the last twenty years.



Wages have increased about fifteen percent, pauperism has declined in London 34 percent, while the mortality from phthisis has declined 52 percent. In Ireland where pauperism has increased 119 percent, phthisis mortality has increased 21 percent.

Sternberg shows from official tables that in Vienna the rate of taxation and the mortality from tuberculosis are precisely in inverse ratio. That in the center of Vienna in the first ward (Bezirk) the percentage of death is one; in the third, fourth, sixth, seventh, eighth and ninth wards, which immediately surround the famous Ringstrasse the mortality ranges from 2.2 to 2.9; in the outlying wards the mortality rises to 5 and 6.7. The personal tax declined from 25 in the center to 8.2 in periphery. Sternberg made no comparisons of periods, but plainly demonstrated the coincidence of poverty, poor wages, crowded houses, immorality and tuberculosis; facts that have long been established and which constitute the vicious social conditions. It is a matter of common experience that tuberculosis attacks those individuals who have been weakened by previous disease and injury and also those who have been debilitated by overwork, insufficient nourishment and are crowded in tenements and ill-ventilated rooms; all these conditions are those in which the poor find themselves, but Newsholm shows that the mortality of tuberculosis improves faster than these conditions are ameliorated. The decreased mortality in Germany began before much improvement in the industrial condition of the country began to augment and even before the great impulse for the founding of sanatoria.

Poverty favors tuberculosis but it remains to be seen in what way it favors it. It is very generally accepted that the immediate way in which the disease is extended is by infection through the tubercle bacillus. If there were no germ, there would be no infection. Behring's theory of the milk infection of infancy and the latent tuberculosis of childhood has not many supporters outside his immediate following. It is certainly the feeling of most experimenters that bovine infection is rare except in children. Bovine infection is possible and the only discussion now is as to its frequency.

It is now necessary to discover if there are any improvements in the sanitary conditions that have a direct bearing on the life of the poor and which would favor the decline in the mortality rate by increasing the resistance of the population. Such factors are general sanitary measures, improved housing, increased air spaces, sub-drainage and the corresponding diminution in the

dampness of houses, reforms in large establishments as schools, factories, barracks, prisons, better ventilation and greater cleanliness in shops, protection against dust in the dangerous trades, isolation in sanatoria, hospitals, etc.

The immense importance of the great sanitary measures carried out over the world can not be overestimated. Improved water supply has almost removed typhoid fever from a large part of Europe. In England and Germany, river and lakes are protected from pollution from sewage, and much of the water supply is by artesian wells. The control of the infectious diseases which are so large a contributory factor in the production of tuberculosis has been of great value to the general health. Street cleaning and more general wholesomeness have by producing more healthy and agreeable surroundings raised the standard of self respect and habits of cleanliness. But it is doubtful if these general measures have had any *direct* influence on the mortality of tuberculosis, although our knowledge of the disease would lead us to expect some improvement in the death rate by an improvement in sub-draining.

The steadily increasing crowding of the cities, the rural exodus, is subjecting a large proportion of the population to the urban influences.

In the United States, 1840, there were 9 persons in cities to 100 in the country; 1890, 41 persons in cities to 100 in the country.

In England, 1861, 175 persons in cities to 100 in country; 1901, 335 persons in cities to 100 in the country.

In Prussia, 1864, 43 persons in cities to 100 in the country; 1895, 69 persons in cities to 100 in the country.

The dangers which come from urbanization are diminished resistance of the body and easier infection on account of the crowding. The cities have always had a greater mortality than the country, but this ratio is not increasing with the increased growth of the cities. Theoretically one would postulate an increase but this is not the fact. The largest cities have shown the greatest improvement. We must then find some powerful influences to explain the apparently contradictory conclusions. Improved dwellings, tenement house reform, increased air spaces, factory reform have probably prevented the overcrowding in growing cities from producing the natural results of an increased tuberculosis mortality. The reform of the dwelling house has probably had the greatest effect on tuberculosis of any measure.

yet the improvement here is not sufficient to explain the great decline of 30 to 50 per cent. in the mortality.

The only sanitary measure which can have a direct influence is isolation or the institutional treatment of tuberculosis. Koch says "the only country that has a considerable number of special hospitals for tuberculous patients is England and there can be no doubt that the diminution of tuberculosis in England which is much greater than in any other country is greatly due to this circumstance."

There have been for many years consumptives' hospitals in England and the general hospitals have always received such patients, moreover the number of patients dying in hospitals has continuously increased from 16 to 100 deaths from consumption in 1840 to 30 in 100, in 1900. In 1899, 2800 persons died of tuberculosis in the London hospitals, This same ratio holds good in Prussia where 44 per cent. of all death from tuberculosis were in hospitals. In Europe generally more tuberculous patients go to the hospitals now than formerly and remain a longer time. In Paris where there has been only a small reduction of mortality the hospitals are crowded and the surgeons complain of the intrusion of tuberculous patients. Such patients remain only a short time, about 25 days, and this short isolation can have therefore but little effect on the general infection. The contention that institutional treatment and isolation of advanced cases aid municipal hygiene, applies especially to those who are so situated on account of their social conditions as to give the infection to others.

We have recently started a family and childrens' clinic in Cleveland. To this clinic all individuals in a tuberculous family are invited and are examined. Of 70 supposedly healthy children examined about 7 are found to be tuberculous. This suspicion that a large number of children are so infected has only developed within a few months and I know of but one other clinic for this purpose, and our early results are supportive of the conclusions of the Berlin clinic which has been in operation but six months. Such facts as these make more imperative the separation of the patient from his unsanitary surroundings.

It was found in leprosy that the epidemic would disproportionately subside if 40 per cent of the patients were isolated. That is that the decline of new cases would be greater than the forty per cent old cases that were hospitalized. Thus we can hope in this matter of tuberculosis for a similar result. However, the



increased virulence of the infection in tuberculosis over that in leprosy would invalidate the rule of leprosy, while the still greater infections of small pox would destroy the rule altogether for that disease.

In England domestic relief, (as we know it here) is not common. A man receives no relief for his sick wife or child at home as long as he can support them, and the family receives no public support so long as the man is at home. This rule tends to send the men early to the infirmaries, much earlier than the women. As a consequence many consumptives seek the assistance of the hospitals and the concentrated house infection from the prolonged stay of the patient in his home is avoided. In Ireland the reverse is true. Domestic relief is the rule there and advanced consumptives are cared for in the midst of their families and are constantly a source of infection. Phthisis has increased 21 percent in Ireland, and declined 52 percent in England. There are of course other contributing factors in Ireland, notably the increase in pauperism by 119 percent, while in London pauperism has declined 34 percent. The claim that separation of the sick from the well has contributed largely to the health of the nation is not impaired by the fact that other contributing factors have aided in the improved hygiene of the people.

There is a wholesome fear of tuberculosis in America but this fear of the patient has out run our willingness to provide for him. He can still demand a place in the hospitals of Europe but the doors are shut to him here. This unkindness will certainly react upon us if we do not soon realize its dangers. We here fear the tuberculous individual but we do not sufficiently fear the condition of tuberculosis. To provide a sufficient number of sanatoria on correct and safe models is expensive and the advantage of them is questioned. But we have the agencies at hand in our municipal hospitals and infirmaries for the isolation of advanced cases. Every county in this state has provision for the sick poor, but very few of them have made adequate provision for the tuberculous poor. If, as Newsholm has shown in his presentation of the case, the rate of mortality has declined in so far as a nation has extended its institutional treatment of tuberculosis the lesson is plain. Almost any infirmary can provide a ward or rooms for the consumptive; such wards should however be made attractive because the residence is long there and the prolonged waiting is a sad one.

Prevention was the great lesson taught at the Congress.

Prevention by improving the civic conditions, especially the dwelling, and by separating the sick, and prevention by detecting the disease in the earliest stages of its evolution even before the local disturbances in the bones or lungs had manifested themselves.

Cure:—While the belief in prevention was vital and confidence in still further control of the disease strong, there was an increased doubt as to the durability of the final cure.

The sanatorium treatment either at home or in institutions is still the recognized therapy. Brehmer's and Dettweiler's methods still prevail, but there has been no special improvement in the statistics. The dispensary was exhaustively discussed. This much misunderstood institution is a place of prevention but not of cure. To the dispensaries patients go for registration examination, instruction and temporary medication. It is there that they make the acquaintance of the nurse who watches them in the home. Properly organized and conducted a dispensary is a powerful engine in the warfare but its management should be in the hands of competent men or its work may be positively dangerous. It must not be forgotten that in dealing with the bacillus tuberculosis we are dealing with an invisible foe and that the concentration of these bacilli by indiscriminate and uncontrolled gatherings of patients is the most effective way of spreading the disease. The dispensary room should be especially prepared for the purpose and frequently cleaned and should be used for no other purpose than the dispensary. It should if possible be in a separate building and should be an example of cleanliness and care to every one who enters it. This is as necessary for the personnel in charge as for the patients. When there is a large staff of physicians the instruments used in finer diagnosis such as the laryngoscope, microscope, X-ray apparatus, and pneumographs can be supplied but these are not essential. A careful system of notes and card catalogues should be supplied because the records of a dispensary furnish most valuable statistics. Essential to the adequate working of the dispensary is the inspector or nurse. The inspector, says Calmette, the founder of the dispensary, is the chief spoke in the wheel. He visits the home, examines the surroundings, discovers the needs of the family, instructs the patients and advises the other members of the household. He learns the resources of the home and greatly assists the physician in the final disposition of the patient. Without the nurse a dispensary could only exist by specious methods and even then would eventually fail. It is the nurse who decides what aid

is needed and what supplies are sent to the infected house, what disinfection should be made and even whether the place should be permitted to exist. Last week one of our nurses discovered a family with a horse in the house occupying a room adjoining the sleeping apartment. That peniculous center was reported to the city authorities and is condemned.

The office, aims and limitations of the dispensary were discussed at length, and the resolution at the termination of the discussion commended both the sanatorium and the dispensary as indispensable in the struggle with tuberculosis.

The French government appreciated the dignity of the congress and contributed liberally to its support and entertainment. The meetings had commodious and even elegant quarters in the Grand Palais. The president of the Republic was present at several important functions and entertained the members at the Elysée. The receptions, soirées, banquets and opening meeting showed a combination of good taste and prodigality that is unknown outside of Paris, and the local faculty were profuse in their hospitality. The fine organization, high standards and uniform courtesy exhibited at Paris should not be forgotten by the future management of the American Congress of Tuberculosis which will in three years convene at Washington.

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## The Uses and Abuses of Certain of the More Simple Gynecological Procedures

BY HUNTER ROBB, M. D.

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In the first years of gynecology as a specialty, the gynecologist did very few major operations and depended—in season and out of season—upon a routine of topical measures. Then came the mania for operating, and thousands of healthy ovaries were sacrificed. Fortunately the gynecologist learns by experience, and time having taught him that the operative removal of a gynecological lesion did not always cure the patient but often left her a physical and mental wreck, he learned to stay his hand and often make trial of less radical measures. Certain minor gynecological procedures—so often abused formerly, and even now—have nevertheless a certain definite value, and a thorough



understanding of their uses and abuses will certainly be of service to the general practitioner and the specialist in dealing with patients who come to them complaining of what are presumably gynecological disorders. It may therefore be of some profit to discuss the uses and limitations of (1) the bimanual examination; (2) the vaginal speculum; (3) the tampon; (4) the uterine sound; (5) applications to the cavity of the uterus; (6) the vaginal douche; (7) the pessary.

(1) In married women a bimanual examination is permissible in the majority of cases, and where doubt still exists should be supplemented by an examination under anesthesia. On the other hand, in the case of anemic or neurotic girls—unless there is a history of periodical colic without any menstrual flow, unless external examination has proved the existence of an abdominal tumor, or the history points strongly to a gonorrhoeal infection—we should certainly confine ourself at first to a thorough external physical examination, and institute the treatment gained from the indications afforded, and then wait a few weeks before insisting upon a bimanual examination. In unmarried girls, where a bimanual examination seems to be imperative, anesthesia should be employed and as a rule the examination should be made by the rectum.

(2) For a skilled examiner the vaginal speculum is not necessary, but it can be used to advantage during certain operations, and in taking stitches out of the cervix or vaginal walls. In the rare instances in which a speculum is used in examinations those of the ordinary type should not be used for unmarried women. A small cylindrical speculum is much preferable in these cases.

(3) If encouraged women are apt to form the "tampon habit." Properly applied tampons often do good in cases of subinvolution of the uterus, and chronic salpingitis or ovaritis, and much more rarely in cases of retrodisplacement of the uterus. But they must not be applied too frequently or over too long a period as the necessary manipulations often cause irritation. In applying a tampon, the patient should be in the knee-breast posture, which causes the pelvic organs to gravitate towards the abdomen, so that as soon as the speculum is introduced, the vaginal walls separate and the tampons can be placed behind the cervix, and to either side of the median line of the body. A number of small tampons is better than one or two large ones.

(4) The uterine sound has often caused abortion especially in the hands of the young and unsuspicious physician. The specialist uses it in ascertaining the length of the uterine cavity before dilating and curetting, but only after the possibility of pregnancy has been excluded.

(5) Irritating drugs applied to the cavity of the uterus rarely do good. They sometimes cause poisoning. Intra-uterine douches of bichlorid of mercury have often caused severe cramps and shock, and many patients have died from the effects of the poison. Again the use of a counterirritant in the uterus may render the parts more susceptible to bacterial invasion and thus facilitate extension of the pathological process to the adnexa.

(6) The vaginal douche is often given improperly. Here a proper technic is of the utmost importance. It must not be ordered as a routine procedure but properly used it does good in acute inflammations of the vagina, uterus, or lateral structures, and in cases of hemorrhagic or foul discharges from a cancer of the cervix.

(7) The pessary is not a panacea, as was formerly thought for all displacements or supposed displacements of the uterus. In this connection arises the question: What is the normal position of the uterus? In simple displacements of the uterus a well-fitting and properly applied pessary undoubtedly sometimes does good, but when inflammation of the adnexa coexists a pessary would often act as an irritant. Again the existence of a displacement often gives no inconvenience to the woman if her general health is looked after, and her attention is not drawn to her pelvic organs. An experience of over 20 years has taught me that there are only a few cases of anteversion or anteflexion of the uterus which are benefitted by the use of the pessary. On the other hand a prolapsed uterus really needs a mechanical support if for some good reason operation is contraindicated.

In using a pessary several rules must always be observed,  
(1) The pessary must be of the right size and must be inserted in such a way that it acts as a support without causing irritation.  
(2) It must be removed at intervals of two or four weeks in order that it may be cleaned, and the physician must satisfy himself at the same time that it is causing no ulceration of the parts.

(3) Before the pessary is again inserted, and every seven days thereafter, the patient should be given a vaginal douch.

## Two Unusual Complications of Labor—Transverse Vaginal Septum. Congenital Displacement of the Urinary Bladder

F. S. CLARK, A. M., M. D.

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Transverse vaginal septa are comparatively rare. They may be confused with atresia of the vagina and, less likely, with cicatricial stricture which is due to injury or infection. Vaginal septa and atresia are congenital and can be distinguished from each other by the thickness of the base of the dividing wall in atresia which gives the appearance of a constriction of the vagina, while the septa are more of the nature of diaphragms.

The seriousness of these complications in labor depends on the ease with which they yield to the pressure of the presenting part. Edgar refers to Maher's report of 200 cases of these three varieties of obstruction, in which the septa were more commonly seen. The mortality for the child was 41 percent and the mother 13 percent for the three varieties, that of transverse septa alone not being given.

The case I report tonight was seen through the kindness of Dr R. C. Eddy. She was a primipara, age 22, giving no history of serious illness. When 13 years of age she noticed a distension of the abdomen for a few weeks and, one day when skating, she suddenly lost about "two quarts of dark blood which did not clot." In three of four days the discharge stopped entirely. Two weeks later there was a flow lasting five days, which was apparently a normal menstruation. She has menstruated regularly since and has been free from pain. She became pregnant about three months after marriage and was examined by her physician, for the first time, about the middle of the ninth month of pregnancy. He found the lower portion of the vagina entirely separated from the upper by a transverse membrane. Examination with a speculum showed the presence of a small amount of light colored discharge but no opening through the membranes could be found.

I saw her a few days later and found, on examination, the membrane described above. Its anterior attachment was about one and a half inches and the posterior about two and a half inches from the vulva. Pressure against the membrane showed it to be firm except at one point towards the left side which yielded slightly. On examination with a speculum a slight yellowish discharge was seen to be escaping through the membrane at this



point. The color of the membrane was the same as the mucous membrane of the vagina. After a few efforts a probe was passed through the opening and it was dilated so that the finger could pass through and feel the cervix. This much dilatation seemed necessary in view of the approaching labor but it was considered best to allow nature a chance to complete it if possible. The membrane was about as thick as an ordinary blotting paper.

Dr Eddy reports as follows regarding the labor, which began a few days later. The first sign was the "breaking of the water," pains beginning at once. When the first examination was made the patient had been in labor some time and the os was dilated so as to admit two fingers. The opening in the membrane at this time was about the same size. Two hours later the os was fully dilated, the head descending well through it and also through the opening in the septum, the edges of which could not be made out. Delivery of a living child was normal, as was the puerperium. An examination, made one month after labor, showed that the septum was intact not being lacerated at any point and that the edges of the opening through the septum were quite hard and firm to the touch, the opening itself being of sufficient size to admit three fingers. Three weeks later it would admit two fingers.

The patient moved to another part of the city and failed to return for further examination so that later conditions cannot be given.

The case of congenital displacement of the urinary bladder was seen through the kindness of Dr Maynard, of Elyria.

The patient was a primipara, 23 years of age, with a conjugata vera of 8 cm. She was first examined after labor had begun and the cavity of the pelvis was found well filled with what appeared to be a cystic tumor attached to the left pelvic wall. On catheterizing the tumor disappeared, but over the left wall of the pelvis was seen to be a much thicker covering than over the right side. This position of the bladder with the flat pelvis naturally raised serious questions of the best method of delivery. As labor advanced the os dilated slowly. When I saw the case she had been in labor 36 hours. Vaginal examination showed the pelvic outlet normal. The cavity of the pelvis showed nothing unusual except the thickening of the left side above referred to. The os was  $4/5$  dilated and very dilatable. The head was at the brim, the sagittal suture being in the right oblique diameter and the posterior parietal bone being lower in the pelvis than the anterior.

General considerations of the case seemed to justify the use of forceps at least tentatively.

Examination made later when about to put on forceps showed that the bladder was fairly well filled with urine so that it reached to the middle of the cavity of the pelvis and extended downward to about two inches from the vaginal outlet. The examining finger could not be passed along the left side or above the tumor, but could pass to the right and below it. The catheter was introduced and had to be passed upward, inward, to the left and then downward before the urine would escape. When emptied there remained only the thickening above referred to.

To avoid the danger of pressure of the forceps on the bladder and so perhaps injuring it they were applied to the biparietal diameter of the child's head which in this case was not very difficult. This application should likewise lessen the danger to the child and make the delivery easier. With the patient in Walcher's position the head was drawn into the cavity quite readily and delivered, the most difficulty being in rotating the occiput anteriorly.

The child died in about 48 hours, apparently from cerebral hemorrhage caused by pressure of the forceps and the bones of the pelvis at the inlet. After having delivered successfully many cases much more difficult than this one, such a result was hardly expected. The biparietal diameter was  $8\frac{3}{4}$  cm. Either a premature labor or Cæsarian section would be advisable in case of another pregnancy.

The mother made a good recovery. There was no injury to the bladder. It was necessary to catheterize for a number of days.

An examination was made 10 months later by Dr. Maynard, who reports the following:

There were some adhesions from a laceration drawing the cervix to the right. The thickening at the left side of the pelvis was about the same as at confinement. The catheter passed to the left and when the bladder was filled with water it formed the same tumor in front and to the left of the uterus as noticed at confinement, there being no gravid uterus above to prevent expansion in that direction; the bladder would hold more and be less tense than at confinement.

There was no history which might help to explain this position of the bladder and I can explain it only as a congenital displacement.



## The Report of the Milk Commission of the City of Cleveland, December, 1905

The organization of the Milk Commission was initiated by the Academy of Medicine of Cleveland, which, in November, 1904, appointed four of its members, Dr E. F. Cushing, Dr Samuel W. Kelley, Dr. H. H. Powell and Dr J. J. Thomas to represent it, and invited the Homeopathic Medical Society of the city to appoint two members, and the Chamber of Commerce to appoint one. Dr E. O. Adams and Dr Hudson D. Bishop were appointed by the Homeopathic Society, and Mr. Samuel Mather Esq. by the Chamber of Commerce.

The Commission began its labor at once and organized with the election of Mr. Samuel Mather as chairman, Dr E. F. Cushing as vice-chairman, and Dr J. J. Thomas as secretary-treasurer. Dr G. W. Moorehouse was elected assistant secretary.

After organization the Commission adopted rules and regulations for the management of dairies, determined the method of meeting the necessary expenses of its work and selected its experts. The regulations adopted were based upon the fifty dairy rules formulated by the Department of Agriculture of the United States Government. It was decided to meet the expenses of the Commission by the sale of caps which should be used upon bottles of Certified Milk. These caps bear the seal of the Commission, are controlled by it, and serve as the Commission's guarantee upon each bottle of Certified Milk. The method of capping and sealing as finally adopted is the one found by the Brooklyn Commission, after much experimenting, to be the best from all points of view.

The experts selected by the Commission were Dr Samuel Burrows, of the University of Pennsylvania, veterinarian; Dr John G. Spenser, of the Western Reserve University Medical School, chemist; and Dr Roger G. Perkins of the Johns Hopkins Medical School, bacteriologist.

The Commission soon decided to send the veterinarian and the assistant secretary on a tour of inspection through the East. The officers and a certain number of representative producers for the Commissions in Philadelphia, New York City and Brooklyn were visited, and much valuable information was secured. This visit is doubtless to be credited with part of the success which the Commission has met in putting upon the market a Certified Milk of exceptional quality.

Upon his return a number of farms were awaiting examination by the veterinarian. The farms of all possible applicants for certification were carefully inspected. Most of these, either from the standpoint of physical surroundings or on account of poor management, were entirely unsuited for the production of high grade milk. In some cases the farms could have been put into proper shape, but for one reason or another the owner decided not to. The Commission, however, was fortunate in finding in Mr. George R. Canfield a man whose interest in the matter has been sufficient to cause him to put his farm at Novelty, Ohio, into condition to produce milk of the highest quality. His herd, barns, dairy house were suitable for the production of Certified Milk after certain changes specified by the Commission. During the summer Mr. Canfield has built a stable which is thoroughly adequate to the needs of a certified dairy. This stable

will accommodate a herd of 60 cows. To the energy, enthusiasm and persistence of Mr. Canfield the Milk Commission is greatly indebted for its success, since each bottle of Certified Milk is nothing else than the tested product of a single dairy operated in the most approved and painstaking manner.

According to the rules of the Commission, the examinations by experts are to be made at least once a month in hot weather. Bacteriological examinations have been made with this frequency throughout the summer and fall, and have been the cause of great satisfaction to the Commission. Since the Commission was not certain what results could be attained under the conditions which existed in Cleveland, the maximum limit of 30,000 bacteria to the cubic centimeter was adopted as the bacterial standard of the Commission at the time of its organization. Milk coming within this limit would be a satisfactory product for certification. The first bacterial examination, before the routine at the farm was working smoothly, was but a little more than one-half the maximum permitted by the Commission, and the average of remaining counts, six in number, upon which this milk has been certified during the summer and fall, is 2656 bacteria to the cubic centimeter. The following low counts have been reported to the Commission:—June 15, 1085; August 8, 1000; September 16, 1450; November 29, 950. As a result of this experience the Commission has decided to reduce the maximum permitted for the certification of milk produced under its direction from 30,000 to 10,000 bacteria per cubic centimeter.

The inspections of the veterinarian and examinations by the chemist have not been made with the frequency of bacteriological examinations. Since the onset of cool weather these examinations on alternate months have been omitted. The veterinarian is charged both with the health of the herd, including the tuberculin test, and with all details connected with the management of the farm and the production and handling of the milk. The veterinarian has tested with tuberculin all cows of the original herd, and about forty added since May when Certified Milk was placed upon the market. Retests of the herd will be made annually and no cow giving the tuberculin reaction will be added to the herd or permitted to remain in it. The advice of the veterinarian as to the handling of the milk has been needed from time to time. The remarkably low bacterial count is an unquestionable evidence that these directions have been both wise and faithfully followed.

As to the chemical characteristics of this milk the Commission is satisfied that adulteration and the adding of preservatives would not be attempted as it would result in immediate withdrawal of certification. The reports of the chemist confirm the Commission in this belief. At the present time, however, the herd is somewhat deficient in cows producing milk rich in fat. As a result the milk has not always been up to the standard in fat content, namely four percent. This deficiency will be rectified by the addition to the herd of cows producing milk rich in fat, and, since new cows must be added with considerable frequency to meet the increasing demand for Certified Milk, the Commission does not anticipate that it will be long before the quality of the milk is in every way beyond exception.

The sales of Certified Milk have depended almost solely upon the rec-



ommendation of physicians, and while at the present time they have not reached the total that they should have in a city the size and wealth of Cleveland, yet a steady and fairly rapid increase has been attained. The following shows the total shipments from the farm in round numbers, of bottled milk:—June, 2400 quarts; July, 5700 quarts; August, 5900 quarts; September, 7500 quarts; October, 7700 quarts; November, 8100 quarts. This milk is sold both in quart and pint bottles, and the relative sales for the last three months were as follows:—September, 5400 quarts, 4200 pints; October, 5600 quarts, 4300 pints; November, 6000 quarts, 4200 pints. The Commission is informed by those thoroughly conversant with the production of high grade milk that in no other city have the sales of Certified Milk increased as rapidly as this in amount. The favorable showing in patronage must be credited largely to the publicity given Certified Milk. This publicity was secured chiefly by means of circulars published and widely distributed by the Commission to the public and practicing physicians, and, to a somewhat less degree, by the willing co-operation of the daily papers of Cleveland, which recorded the organization and purpose of the Commission and the need of a supply of milk of exceptional cleanliness. The Commission particularly wishes to express its thanks to the Cleveland Plain Dealer for an illustrated article in an Sunday edition early in the summer and for the publication of a communication from the Commission at a more recent date.

The preliminary investigation of the methods of production of Certified Milk and the visit to the certified dairies in the East would have been impossible had it not been for the generous contributions of Mr. Samuel Mather of the Commission and Mr. W. S. Tyler and Mr. E. W. Oglebay. The thanks of the profession at large as well as those of the Commission are due to these gentlemen.

Before the report is closed, we wish to mention the attempt of a certain company which has taken to itself a firm-name in which the word "certified" appears, to trade upon the name of the Commission. Through their agents, who have been known to go to the homes in which Certified Milk has been prescribed by physicians, they claim that theirs is or is as good as Certified Milk. They have gone so far as to represent that their milk is Certified by this Commission. At one time a series of samples of milk sold by this firm was examined by the City Bacteriological Laboratory. The lowest count was 750,000 the highest, upwards of 7,000,000 bacteria to the cubic centimeter. The term Certified is copyrighted but the Commission has received legal advice that to proceed against the company on that ground would be not only expensive but also an exceedingly tedious process. The only steps, therefore, which have as yet been taken to counteract these false claims have been to warn the physicians and the public against them.

Certain difficulties have been met in the distribution of Certified Milk, but at the present time we feel that this matter is being attended to in a manner which is at least fairly satisfactory. At their request, the distribution of this milk was placed in the hands of the Belle-Vernon-Mapes Dairy Co., the Cloverdale Dairy Co. and the Walker-Gordon Laboratory. These firms with some exception cover practically the entire territory of the city, and from them when specifically ordered Certified Milk may be obtained.

Respectfully Submitted,  
THE MILK COMMISSION OF THE CITY OF CLEVELAND.

# The Cleveland Medical Journal

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MONTHLY

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## EDITORIAL

### The Typhoid Mortality of Cleveland in 1905

The typhoid mortality of Cleveland in 12 months, including the last six months of 1904 and the first six months of 1905, was 16.49 per 100,000 of the estimated population of the city.<sup>1</sup> During the year 1905, of the deaths reported to the Health Department, 67 were assigned to typhoid fever as a cause. Estimating the population of Cleveland as 451,000 in round numbers, the mortality would be 14.86 per 100,000.

In an editorial which appeared in the March number of this Journal, forecasts of future mortalities from typhoid fever were given. These forecasts were based upon the mortality of the last six months of 1904 and upon the relation which has existed between the mortality of the first and last six months of the year, in Cleveland, for the years 1892 to 1902, and in the registration area of the United States, for the year 1900. The respective estimates were 18.76 and 15.92.

The result for 1905 is more favorable than either of these methods of estimation would warrant one in expecting, as well

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(1) *Cleveland Medical Journal*, October, 1905



as more favorable than the mortality of the 12 months ending June 30, 1905. Since both the actual and estimated mortalities, depend upon the last six months of 1904, it seems fair to conclude that the conditions resulting from the improved water-supply are better now than they were then. To avoid too sweeping conclusions from these facts, it is necessary to remember, first, that accidental variations in typhoid mortalities are such that as favorable results as these need not invariably prevail under present conditions; second, that the improvement may be due to decrease of infection, not primarily but secondarily dependent upon the water-supply, and the water-supply of the city may have been as good in 1904 as at the present time.

The Municipal Journal and Engineer published two or three years ago, an article by George W. Fuller, in which he gave the typhoid fever death rate for 1898, 1899, 1900 and 1901, and the average for these four years, of all cities in the United States having over 30,000 population. The cities, 132 in number, were arranged in order according to average mortality. Cleveland with an average of 39, was 83d in the list from lowest to highest. Had its average been the same as the mortality of 1905, it would have been the third.

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### Scopolamin-Morphin Anesthesia

A great deal of interest has been manifested of late in the use of scopolamin with morphin as an anesthetic. As is usually the case, it was at first heralded as an ideal anesthetic but since fuller reports have been made from various sources, it seems that it is not so free from danger as was at first supposed. Scopolamin is closely related to hyocin and in fact is regarded by some as identical. A solution of 1-10 milligram of it with 25 milligrams of morphin is given hypodermically in divided doses, the result being a profound sleep, out of which, however, the patient can usually be awakened readily. The ordinary nerves of sensation are particularly affected and painful sensations are either abolished or so diminished that they fail to awaken the patient. In many cases the combination of these two drugs will produce such a deep and lasting sleep that many operations, even of a major character, may be performed, but in most abdominal operations it seems advisable to administer chloroform, in addition, in order to overcome the rigidity of the muscles. A very small amount of chloroform is usually sufficient for this purpose and after the incision has been made its further administration may

often be discontinued. Scopolamin alone is apt to cause great restlessness, hence the advisability of combining morphin with it. It is said to produce a marked vaso-dilatation of peripheral vessels and chloroform rather than ether is recommended as there is less liability to pulmonary congestion and edema. It frequently interferes with respiration causing dyspnoea cyanosis and Cheyne Stokes respiration. Advantages claimed for it are that there is practically no nausea or vomiting after its use, and as the sleep is prolonged for some hours after the operation, there is in reality, less pain than after ordinary anesthetics. A number of deaths have been reported after its use in which the operation was trivial and the anesthetic itself undoubtedly to blame. With the rapidly increasing reports upon its use its final status will probably soon be determined.

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### Recent Experimental Work on Syphilis

With constant improvement in technic, and daily development of new methods of investigation, many of the problems which have been troubling us for many years have made distinct progress towards solution. Among the most important of these is the discovery of the agent of syphilis, with all that such a discovery means. The work of Schaudinn and his followers has already been referred to in these columns and gives good hope that the organism is definitely found.

Parallel with these researches other work dealing more particularly with the experimental inoculation in animals has been going on in Paris under the guidance of Metschnikoff and Roux of the Pasteur Institute of Paris. Through a generous gift they were enabled to procure a sufficient number of monkeys of different kinds for a most valuable series of experiments published in the November number of the *Annales*.

They have found that the varieties of apes are susceptible to syphilis in direct proportion to the nearness of their zoological relation to man, the lower apes being susceptible as far only as the primary lesion, no secondary lesions ever having been observed in them. The orang-outang shows occasional secondary lesions, while the chimpanzee, at once the most suitable and the hardest to keep alive, gives typical secondary lesions in over sixty per cent of the cases inoculated. In these animals the average time of incubation of the primary lesion is thirty days, that of the secondary lesion after the appearance of the primary is thirty three days. The secondary lesions are in general much less severe



even in the chimpanzees than in man, showing a greater natural resistance, and are usually popular in type with occasional mucous patches. In one or two cases the eruption was more general, became secondarily infected, and the animals died of exhaustion. Some of the animals showed marked paralyses of the hind legs, transitory in most cases. No lesions have been observed at autopsy nor have any tertiary lesions been seen.

In the experimentation as to the possible prevention of the disease many sera were tried, obtained by different means. The resistance of the lower apes to the disease gave hope that the serum of such apes which had recovered from the primary lesion might be protective against inoculations. Animals were treated after recovery from the inoculated syphilis for periods of as long as fifteen months, and their serum, after preliminary heating to destroy the virulence, injected into other animals at varying periods after inoculation with virulent material. In no case was the result even encouraging.

When the infectious material and the immunizing material were mixed *in vitro*, the results were variable but gave hope that with a stronger serum success might follow. Preventive inoculations with heated blood of persons recovered from syphilis was also no value. The non-contagiousness of the tertiary lesions led to injections of suspensions of gummata, but these also were negative.

The susceptibility of the virus to heat, resulting in its destruction by a temperature of 48° C. for half an hour, suggested that the infection might be destroyed *in situ* by the application of heat, but this line led to nothing. In this connection it became interesting to find how long the virus remained localized, so a series of experiments was made with disinfectants, with the result that it was found that the contagium remained at least 24 hours localized, and during this period could be destroyed by the use of mercurial disinfectants.

The authors appear to consider that the Spirochaete or perhaps better, the Spironema pallida, described by Schaudinn, is definitely the organism of syphilis. They have found it in practically all the primary and the secondary lesion and in congenital syphilis in the organs.

The work is still in progress, and in connection with the researches on the Spironema should lead to even more definite results before long.

## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

**Clay Poultices:** Aug. H. Roth, in the *Journal A. M. A.*, states that one of the most interesting phenomena in the trend of modern therapeutics, is the present extensive use of the variously medicated clay mixtures, as external applications in treating pneumonia, bronchitis, pleurisy, etc. The essential composition of all such clay mixtures is a base consisting of silicate of alumina and magnesia, combined with salicylic acid, peppermint, wintergreen, eucalyptus, iodine or ammonium iodide, and iron carbonate. The glycerin is added to give the kaolin or white clay its thick jelly-like consistency, so as to allow of easy spreading, while the other substances are added for whatever antiseptic power and pleasant odor they may impart to the mixture. Whatever value the clay mixture may have in the treatment of boils, is owing to the fact that it, like any other poultice, furnishes more or less constant heat and moisture, but the most ridiculous and likewise dangerous recommendation is its use in open and septic wounds. He details a case in which a slight infected wound of the hand, the attending physician applied a thick coating of the best known clay mixture, thus practically sealing off the infected focus. The pent up infection now rapidly involved the whole arm, and the patient was brought to the hospital with a severe extensive septic cellulitis, and areas of gangrene and sloughing. The use of a clay mixture poultice in pneumonia serves merely a single purpose, namely a means for the application of heat to the chest wall. He points out that a thick layer of the heavy clay mixture applied to an infant's thin chest wall, seriously impairs respiration; again both in infants and adults, the presence of the clay mixture makes it impossible to make with accuracy the careful physical examinations which here are especially needed, both to indicate the disease progress and as a basis for proper treatment.

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**Bronchitis:** Joseph E. Winters, in the *Medical News* for November 25, summarizes the treatment of bronchitis in children as essentially forestalling and thwarting extension. If this is accomplished fatal issue is averted, and is well nigh attainable in every instance. The temperature of the respired air should be uniformly 72° F., day and night; sun exposure and open fire if practicable. Ventilation must secure at all hours, pure fresh air. The child should be in a crib, never on a bed. The crib should be flannel-lined and be in the center of the room, never near a wall, window, or door. Sometimes it is necessary to place screens about the crib to avoid draught. Light flannel should envelop the child's body, arms and legs. The flannel shirt should be secured to the diaper by safety-pins, back, sides and front; long worsted stockings should be worn and likewise fastened to the diaper. A quick hot bath precedes flannel envelopment. In case of moderate severity this compasses nine-tenths of the treatment. As regards drugs, he believes that in severe cases, the drug of unfailing universal efficacy is aconite. To restrain and limit the pressure of blood within the bronchial arteries and branches of the aorta, is the aim. Through this drug, arterial pressure



is promptly circumscribed. Maximum, frequent doses during the first hours, diminished, less frequent doses, after four or six hours; early abandonment. It should be given in water only,—tasteless, nonnauseating, it does not affect appetite. Arterial pressure is lessened by diaphoresis, and sweet spirits of niter is the preëminent diaphoretic. Cold to the cutaneous capillaries is pernicious and unphysiological; conduces to extension. To diminish excessive secretion, he believes the spirits of champhor to be the most valuable drug. For a child of one year he gives spirits of camphor one dram, in a three ounce mixture of syrup of tolu and Aqua Gaultheria, a teaspoonful every half hour. When the tubes are loaded with tenacious secretion, mustard is of priceless service. One part mustard, six parts of flour mixed with *cold* water, and white of egg and applied as a paste between two layers of this linen, covering the entire region, where moist sounds are heard, left on 20 to 30 minutes, and renewed every two to four hours, according to the condition of the skin. When the air tubes are blocked by tenacious mucopus they can only be freed by active emesis. This should not be repeated more than once or twice in the 24 hours. Oxygen inhalation must be *continuous* in this critical state, even during sleep. He states that steam inhalation does not meet one physiological, pathological or symptomalogical indication, that is not better, more completely and far more wisely fulfilled by the breathing of warm air, by dilatation of the cutaneous capillaries, by aconite and by counterirritation. Steam inhalation increases susceptibility to cold, to catarrh of the larynx and bronchi, to catarrhal croup. A croup kettle therefore must never be used except for croup.

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**Uterine Hemorrhage:** George E. Shoemaker, in the *New York and Philadelphia Medical Journal* for November 25, states that the treatment of chronic hemorrhage of the uterus, depends, of course, upon the diagnosis, and emphasizes the point that until the diagnosis is established no systematic treatment is admissible; a careful microscopical examination should be made in a given case. Again the clinical opinion of a careful gynecologist is almost invariably correct in regard to the character of any malignant tissue which can be seen and touched, and too much reliance must not be placed on a single negative microscopical opinion, unless the pathologist has had a satisfactory piece of tissue, well known to be a part of the growth in question. His experience with specific drugs in uterine hemorrhage has been unsatisfactory, ergot or thyroid, atropin, mammary extract and similar ones may be tried, but they fail in bad cases of definite diseases. In a bad case, rest in bed, ice locally two hours out of three with a tight vaginal pack of iodoform gauze, through a Sims' speculum with the patient in knee-chest posture (this only when bleeding is going on).

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### Cardiac Failure in Typhoid

*The Therapeutic Gazette* for November, states, concerning the treatment of a weak heart and the accompanying circulatory condition, in typhoid fever, that in the majority of these cases, digitalis is of little value, and the heart must be supported for a few days at **least by more** diffusible stimulants, such as aromatic spirits of ammonia, Hoffman's anodyne, and alcohol with occasional doses

of strychnin. During the time that these are being given, a modified cold bath should be employed. Tepid sponging may be used, with active friction or if very profound depression is present, good results may actually follow rapid sponging with very hot water, which paradoxical as it may seem, will not infrequently lower temperature, and will certainly aid in diminishing toxemia, cold being applied to the head, while the sponge after being dipped in hot water, is swept rapidly over the surface. After the circulatory condition has been improved by these measures, digitalis sometimes will act efficiently, particularly if an icebag is applied over the precordium. If not, large or small quantities of good whiskey or brandy, are usually better than continued doses of ammonia or Hoffman's anodyne, which had better be reserved for circulatory accidents. Strychnin also belongs to that class of remedies which are to be held in reserve for emergencies. It is a mistake to employ strychnin day after day for long periods as a circulatory stimulant, as it is prone to produce an irritable temperature, and general nervous irritability and it is not a direct circulatory stimulant. In those cases in which the circulatory condition is profoundly feeble, the hypodermic injection of a grain of camphor in sterilized olive oil, once or twice a day for a day or two is often of service.

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**Thyroid Extract:** William J. Taylor, in the *Monthly Cyclopedia*, calls attention to the internal use of thyroid extract in increasing the coagulability of the blood; he believes it well worthy of an extended trial, either in cases of true hemophilia, or where the coagulating time has been increased by disease. He reports three cases of operations in "bleeders," in which the administration of thyroid extract for some days preceding operation, was followed by remarkable results in lessening the hemorrhage at that time. Dr Sajous believes that the thyroid extract stimulates the anterior pituitary body, which in turn excites the adrenals to greater activity, thus augmenting the proportion of fibrin ferment in the blood, and consequently its coagulating power. This may explain its action in these hemophilics, and its use is recommended as a preparatory treatment whenever surgical operation is to be undertaken in such persons.

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**Formic Acid:** In the *International Clinics* (Vol. III, Fifteenth Series), Henry Huchard writes concerning the musculo-tonic action of formic acid, and believes it to be a demonstrated fact. The effect is felt quickly, inside of 24 hours, and a number of persons to whom formic acid or sodium formiate was administered, remarked of their own accord that they felt stronger and more "fit" in ordinary walking, stair-climbing and hill-climbing, and that their sensation of fatigue was lessened or retarded. Another very important action, is the effect of formic acid on diuresis. The urinary secretion is rapidly and very markedly increased by the formiate of lithium sodium or potassium. The diuretic effect is very evident, is produced rapidly the first day and disappears a day or two after the drug is discontinued. The toxicity of the formiates is insignificant. He prefers the sodium formiate three to four grams (45 to 60 grains) a day, dissolved in water and syrup. It has no ill effect on the kidney.



## Academy of Medicine of Cleveland

## EXPERIMENTAL MEDICINE SECTION

The twenty-second regular meeting of the Section of Experimental Medicine was held at 8 P. M., Friday, December 8th, 1905, at the Cleveland Medical Library. Program: On the Anatomy of the Kangaroo, Dr C. A. Hamann; Relation of Lesions in Gasserian Ganglia to Herpes in Pneumonia and Cerebro-spinal Meningitis, Dr Wm. T. Howard, Jr.; Chairman's Address, Dr Wm. T. Howard, Jr. The annual election of officers of the Section will be held at this meeting.

WM. T. HOWARD, M. D.,  
Chairman.

TORALD SOLLMAN, M. D.,  
Secretary.

## CLINICAL AND PATHOLOGICAL SECTION

The twenty-ninth regular meeting of this Section was held Friday, December 1st, at 8 P. M., at the Cleveland Medical Library. Program: A Type of Appendicitis with Remarks upon the Alimentary Canal, Dr C. A. Hamann; Report of Cases Observed During Pregnancy: (a) Transverse Vaginal Septum; (b) Congenital Displacement of the Urinary Bladder, Dr F. S. Clark; Report of Three Surgical Cases, Dr R. E. Skeel. The annual election of officers of the Section will be held at this meeting.

WILLIAM E. LOWER, M. D.,  
Chairman.

JUNIUS H. MCHENRY, M. D.,  
Secretary Pro Tem.

## German Medical Society

At the annual meeting of the German Medical Society, the election of officers resulted as follows: president, Dr E. Rosenberg; vice president, Dr A. W. Luecke; secretary, Dr M. Kahn; corresponding secretary, Dr W. E. Sampliner; treasurer, Dr S. S. Berger. The paper of the evening was read by Dr W. E. Sampliner, on the subject: "The Treatment of Pruritus." A spirited discussion followed, by the various members present.

W. E. SAMPLINER, M. D.,  
Cor. Secretary.

E. ROSENBERG, M. D.,  
President.

## Alumni Association of St. Alexis Hospital

The regular monthly meeting of the Alumni Association of Resident Physicians of St. Alexis Hospital was held Thursday, December 7, at the Hollenden Hotel. Program: "Headache," Dr J. E. Cogan; "Zoster," Dr W. J. Manning; "Apoplexy," Dr W. J. Irwin; T. J. Calkins, Secretary; Dr J. E. Cogan, President.

## Book Reviews

Progressive Medicine, 1905. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 298 pages. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00, carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia and New York.

Through the courtesy of Lea Brothers & Co., Philadelphia and New York, we have received, during the year, the quarterly digest of the

advances and improvements in medical and surgical sciences, appearing under the title of *Progressive Medicine*.

We have had many occasions to note the value of this work and the high character of the articles contained in it. As a concise and satisfactory record of the progress of medicine, we know of no similar work which can quite compare with this, which takes up the progress made in the individual branches of medicine and surgery in an essay which constitutes an exhaustive monograph.

The table of contents for the year just past is sufficiently indicative of its wide scope.

Volume I, appearing in March, 1905, covers surgery of the head and thorax, by Dr Charles H. Frazier, of Philadelphia. The infectious diseases, including acute rheumatism, croupous pneumonia and influenza, are considered by Dr R. B. Preble. Dr Floyd M. Crandall writes concerning the diseases of children, and Dr C. P. Grayson covers the field of laryngology and rhinology, while the domain of oto-laryngology is considered by Dr R. L. Randolph.

Volume 2, appearing in June, 1905, is marked by the exhaustive and interesting monograph of diseases of the blood, including the lymphatic system, by Dr Stengel. Dr W. B. Coley covers the progress made in the operative field for hernia, and Dr Edw. M. Foote the progress in the surgery of the abdomen exclusive of hernia. The subject of ophthalmology concludes the volume, a valuable presentation of the subject by Dr Edward Jackson.

Volume III, for September, 1905, opens with a very valuable resumé of the diseases of the thorax, including the heart, lungs and blood-vessels, by Dr Wm. Ewart, of London. The subject of dermatology and syphilis, is considered by Dr Wm. S. Gottheil. Diseases of the nervous system is considered by Dr Wm. G. Spiller, and obstetrics by Dr Richard C. Norris. The subject matter included in this volume is of the same high order as has already been noted of the earlier numbers, and marks the work as most exhaustive of its kind in this special field.

Volume IV, for December, 1905, covers the diseases of the digestive tract and allied organs by Dr J. Dutton Steele; genitourinary diseases by Dr Wm. T. Belfied; diseases of the kidneys by Dr John Rose Bradford; anesthetics, fractures, dislocations, amputations, surgery of the extremities and orthopedics by Dr Joseph C. Bloodgood, and a practical therapeutic referendum by Dr H. R. M. Landis.

Among much other valuable material, Steele includes the interesting and important work of Cannon on the movements of the alimentary canal and the physiology of the digestive tract. Belfield, in his section, includes an excellent critical resumé of the whole question of hypertrophied prostate. The surgical section by Bloodgood is a very valuable one, particularly the part on benign and malignant tumors of the extremities. Bloodgood, from a wealth of experience, shows conclusively that many sarcomata may be cured by local removal, and gives beautiful colored plates, illustrating the types of tumors that may be so removed. The therapeutic referendum, by Landis, is a very practical chapter and considers in a critical way the various advances made in this department during the year.



Harrington's Practical Hygiene. A Treatise on Hygiene and Sanitation. For Students, Practitioners, Health Officers, etc. By Charles Harrington, M. D., Assistant Professor of Hygiene in Harvard University Medical School, Boston. New (3d) edition, thoroughly revised. In one octavo volume of 793 pages, with 118 engravings and 12 plates. Cloth, \$4.25, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

The appearance of the third edition of this work in such a short time after the original publication gives evidence of its well deserved popularity. The author's name carries with it the promise of thorough and accurate work, clear and concise statements of facts and theories, and an eminently practical application of the knowledge gained by study and research. The previous edition was carefully reviewed in these columns so recently, that only a word will be necessary regarding the new edition. All matter rendered obsolete by research and study conducted since the appearance of the second edition, has been replaced with material in accordance with the present knowledge, and other advances have been noted in their appropriate places. A very helpful chapter on Infection, Susceptibility and Immunity has been added in which one finds a very clear statement of the present theories of Immunity. We know of no work on Hygiene which gives a better view of the subject than this volume of Harrington's.

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Simon's Manual of Chemistry. A Guide to Lectures and Laboratory work for Beginners in Chemistry. A Text-book especially adapted for Students of Medicine, Pharmacy and Dentistry. By William Simon, Ph. D., M. D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, and in the Baltimore College of Dental Surgery, etc. New (8th) Edition, thoroughly revised to conform with the eighth decennial revision of the U. S. Pharmacopœia. In one octavo volume of 643 pages, with 66 engravings, 8 colored plates representing 64 important chemical reactions, and one colored spectra plate. Cloth, \$3.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This is the eighth edition of Simon's Chemistry, a fact in itself evidence of its popularity. It is essentially a practical work, and this edition embodies the changes and additions of the new Pharmacopœia. It certainly fills admirably its claim, of concisely and clearly presenting the science, and furnishing a trustworthy laboratory guide. The work consists of seven subdivisions, each treating its subject adequately, and quite completely covering the chemical field. It is one of the very best books upon the subject and the colored plates add greatly to its value.

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Taylor on Sexual Disorders. A Practical Treatise on Sexual Disorders in the Male and Female. By Robert W. Taylor, A. M., M. D., Clinical Professor of Genito-Urinary and Venereal Diseases in the College of Physicians and Surgeons (Columbia University), New York. New (3d) edition, enlarged and thoroughly revised. In one octavo volume of 575 pages with 130 engravings and 16 colored plates. Cloth, \$3.00, net. Lea Brothers & Co., Philadelphia and New York, 1905.

The author in this third edition of his previously well-received work, has made numerous additions which give the reader the benefit of the latest methods of diagnosis and treatment of a subject which has been usually shunned or unsatisfactorily covered in most general text-books.

The subject matter is treated in a most wholesome and scientific way, and the new edition will enlarge the book's sphere of usefulness. The typography and illustrations are excellent.

## Medical News

E. A. Griffin, of Bellefontaine, is seriously ill.

J. D. Thomas, of Springfield, expects to soon locate in Vienna.

H. H. Johnson, of Portsmouth, is soon to leave and will locate in Cincinnati.

Fred Ingraham, of Curtice, is unable to attend to his practice on account of illness.

Fred W. Kehrer, of Bucyrus, has just returned from New York City where he has taken a post-graduate course.

Ralph A. Dalby has returned to Youngstown, after an absence of nine months, which time was spent in an extensive post-graduate course.

The Lorain County Medical Society held its meeting on Tuesday, December 19th. W. C. Bunce, of Oberlin, read a paper on "The Influences that Determine Age."

The Crawford County Medical Society held its meeting at Galion on Tuesday, December 26th. Dr Marquart, of Crestline, spoke on "Symposium of Lobar Pneumonia" and Jno. W. Birk, of Bucyrus, spoke on the treatment of the same.

The Hancock County Medical Society held its meeting at Findlay, Thursday evening, December 14th. Several papers on interesting subjects were presented by members of the organization. At this meeting officers for the ensuing year were elected.

The Lorain County Medical Society held a meeting December 12, 1905, with the following results as election of officers: president, W Boles Hubble, Elyria; vice president, Wm. E. Wheatley, Lorain; secretary, Otis M. Cope, Lorain; treasurer, E. Cameron, Lorain; member board of censors, S. V. Burley, Lorain.

The annual meeting of the Knox County Medical Society, which was held at Mt. Vernon, Friday afternoon, December 8th, was well attended and the program was filled with interest. The following officers were elected: president, John E. Russell; vice president, George D. Arndt; secretary, Harry W. Blair. The next meeting will be held in March.

The Jefferson County Medical Association held its regular meeting during the week of December 11th. The physicians at their meeting elected the following officers for the year 1906. President, H. C. Wood, of Smithfield; vice president, Joseph Robertson; secretary, J. R. Mossgrove; treasurer, W. E. Kerr. Member Board of Censors, H. C. Minor, of Toronto.

The sixty-first annual meeting of the Northwestern Ohio District Medical Society was the most successful meeting in the many years of its organization. At the last session the following officers were elected: president, A. S. Rhudy Lima; first vice president, Robert Rise, Fremont; second vice president, J. H. Huntley, Lima; secretary, E. A. Murbach, Archbold; treasurer, W. S. Phillips, Belle Center.

The last meeting of the Belmont County Medical Society was held at the Windsor Hotel, Bellaire, Wednesday, December 13th. The program was as follows: Drugs, "Heart Tonics," A. C. Beetham; "Anodynes," Vinton N. Marsh; "Mercury," Robert Blackford; "Suggestive Therapeutics," A. H. Hewetson; "Hynotic Suggestion," Fred A. Korrell; Notes from the Mayo Clinic, James O. Howells; Volunteer Papers; Exhibition of Clinical Material; Annual election of officers.

The Tuscarawas County Medical Society held its annual meeting Tuesday, December 5th. In the evening a banquet was held for them. Previous to the adjournment of the business session, officers were chosen for the coming year as follows: president, Dr Shanley, of New Philadelphia; vice president, W. R. Hosick, of Newcomerstown; secretary, Martha Shalter, of Canal Dover; treasurer, J. A. McCollam, of Uhrichville. P. M. Wagner, of Canal Dover, was chosen censor.



Officers for the ensuing year were elected by the Clark County Medical Society as follows: president, G. E. Brubaker; first vice president, F. P. Anzinger; second vice president, H. L. Heistand; secretary, G. F. McKim; treasurer, C. S. Ramsey; executive committee, C. M. Heistand, chairman; S. R. Hutchings and J. E. Myers. A vote of thanks was extended to the retiring officers, and also to the commercial club for the use of the club rooms for meetings during the past year.

The Fairfield County Medical Society held its regular monthly meeting at G. A. R. Hall, Tuesday afternoon, December 19th. The attendance was unusually large. J. J. Sillbaugh, of Lancaster, read an interesting and instructive paper on "Neuroses," and the annual election of officers followed. President, J. J. Sillbaugh, of Lancaster; vicepresident, Dr Mondhank, of Royalton; secretary, H. M. Hazelton, of Lancaster; treasurer, S. A. D. Miller, of Lancaster; board of censors, Dr Courtright, of Lithopolis and Dr Taylor, of Pickerington.

The regular meeting of the Guernsey County Medical Society was held Tuesday evening, December 5th, in Cambridge. In the absence of president F. M. Mitchell, F. W. Lane presided. After the reading of the minutes of the last meeting which were approved, the election of officers for the ensuing year was held, resulting as follows: G. W. Hixon, president; I. W. Keenan, of Quaker City, vice president; A. G. Ringer, secretary; A. B. Headley, treasurer; C. A. Moore, censor, three years. D. L. Cowden and Walter C. Taylor, both of Kimbolton, were elected to membership.

The meeting of the Wood County Medical Association held Wednesday afternoon, December 20th, was well attended and the election of officers was held. Those elected were: president, W. W. Hill, of Weston; vice president, M. A. McKendree, of Bowling Green; treasurer, E. H. Tobias; secretary, F. D. Halleck, of Bowling Green; Board of Censors, C. S. St. John, Bowling Green; I. S. Bowers, of Perrysburg; W. H. Price, of Stony Ridge. The following names were presented for membership; M. Wadsworth, of Hoytville; C. M. Showman and A. G. Henry, North Baltimore; A. A. Babione, of Luckey; I. V. Wirebaugh, of Prairie Depot. C. J. Altmaier, of Rudolph and E. F. Ward, of Pemberville, were accepted to membership.

The twenty-first regular meeting of the Lake County Medical Society was held Monday evening, December 4th, 1905, in the Assembly Rooms of the Parmly Hotel, Painesville, Ohio.

Program—(1) Report of the Committees; (2) Annual report of the Treasurer; (3) Annual report of the Secretary; (4) Election of Officers; (5) Remarks of retiring President; (6) Regular order of business from No. 3 to No. 8; (7) Suggestions and arrangements for the annual banquet, Jan. 8th, 1906. H. N. Amidon, M. D., President, Painesville, Ohio; J. W. Lowe, M. D., Secretary, Mentor, Ohio

The twenty-second regular session of the Lake County Medical Society was held at 8 P. M., Monday, January 8th, 1906, in the Assembly Room of the Parmly Hotel, Painesville, Ohio.

Program—(1) Annual Banquet; (2) Appendicitis, Dr Dudley P. Allen, Cleveland, Ohio. Discussion—(3) Medical Side, Dr C. F. House; (4) Surgical Side, Dr H. H. Amidon; (5) General, Limitation, five minutes; (6) Payment of annual dues. Legislative matters will be presented at the February session. C. H. Quayle, M. D., President, Madison, Ohio; J. W. Lowe, M. D., Secretary, Mentor, Ohio.

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## Deaths

Charles L. Webster, of this city, died December 22nd.

Halleck S. Campbell, of Mt. Gilead, died December 17th.



# The Cleveland Medical Journal

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No 2

## Chloroform Discovered by Dr Samuel Guthrie, an American Physician

A. G. HART, M. D., CLEVELAND, OHIO

Recently while in Chicago, and relating some Army experiences of the Civil War, I said that a few years before the war, Simpson gave us chloroform, which was to be the surgeon's right arm on every battle field and in every hospital.

A few days later, a gentleman who had heard this remark, sent me a copy of a paper read by Dr Albert H. Burr, in 1903 or '04, before the Chicago Medical Society. In this paper the claim was made that an American Surgeon, Dr Samuel Guthrie, was the discoverer of the chemical, chloroform.

In conversation with members of our own society it appeared that the question thus raised was as new to others as to myself, and it seemed therefore that it might be an interesting topic to introduce here.

On referring to the authorities on the subject, it at once appeared that the claim of Dr Guthrie's fatherhood of chloroform was not a new idea, or a Chicago discovery, but dated back many years.

Dr Burr, in the paper I spoke of, says justly that "chloroform stands supreme as the most valuable contribution of chemical science to suffering humanity." It is due to history, and to a just pride in the work of the American surgeon who made this discovery, that his name and the memory of his far reaching achievement, should be handed down by this generation, now fast passing away, which reaped the first fruit of his labors, and that his memory be perpetuated by those who are to follow us.

And now briefly of Dr Samuel Guthrie, and of the events leading to his discovery. The Surgeon General's Library at

Washington, loans a pamphlet whose title is "Memories of Dr Samuel Guthrie and the History of the Discovery of Chloroform, by Ossian Guthrie, Chicago, 1887." This memorial gives a letter dated January, 1887, from the Vice President of the Jefferson County Historical Society at Sacketts Harbor, N. Y. It recites that the Society is preparing to erect a monument to the memory of Dr Guthrie as the discoverer of chloroform. It requests Mr Ossian Guthrie of Chicago, a grandson of Dr Guthrie, to prepare a memorial of his grandfather.

I draw upon this memoir.

Dr Samuel Guthrie was born in Massachusetts, in 1782, and was the son of a physician, who was evidently a vigorous and wide-awake man. He studied medicine with his father, and attended lectures in New York in 1810-11, and in Philadelphia, in 1815, and became a full fledged doctor at the age of nineteen years. In 1817, he removed to Sackett's Harbor, New York, and began the practice of medicine. Here he established a chemical laboratory.

He soon relinquished the practice of medicine to engage in the manufacture of a percussion priming powder which he invented. This powder he moulded into the form of pellets to be exploded in a punch lock which he also invented for that purpose. It quickly sprang into general favor, consigned the old time flint lock to the scrap pile, and revolutionized the use of fire arms in modern warfare. Not until after Guthrie's death was it superseded by the percussion cap of which it was the forerunner. He invented new methods and improved the manufacture of many drugs, and especially of the chlorate of potassium. All this goes to show his clear head, persistence, and great inventive powers.

In the course of these experiments he developed a new chemical compound, which was destined to be one of the wonders of the world, and to affect the lives and happiness of millions of people.

In the number for October, 1831, of *Silliman's American Journal of Science and Art*, he described a "New Mode of Preparing a Spiritous Solution of Chloric Ether." Thus modestly and unheralded, was given to the world that chemical which we know as chloroform.

Dr Guthrie proceeds to give his process for producing this chemical. He says: "Into a clean copper still put three pounds of chloride of lime, and two gallons of well flavored alcohol, of



sp. gr. .844, and distill. Quoting from the same number of the Journal, Dr Guthrie says: "During the last six months a great number of persons have drunk of the solution of chloric ether in my laboratory, not only very freely, but frequently to the point of intoxication; and so far as I have observed, it has appeared to be singularly grateful, both to the palate and stomach, producing promptly a lively flow of animal spirit and consequent loquacity, and leaving after its operation, little of that depression consequent to the use of ardent spirits. This free use of the article has been permitted, in order to ascertain the effect of it in full doses on the healthy subject; and thus to discover as far as such trials would do, its probable value as a medicine. From the invariably ageeable effect of it on persons in health, and the deliciousness of its flavor, it would seem to promise much as a safe, quick, energetic stimulus."

All of which presents Dr Guthrie as a man of original mind, virile powers, and inventive genius who saw in his chloric ether great possibilities.

Among those who received a sample of the new drug for experimental work, was Dr Eli Ives, professor in Yale Medical College. He reported in January, 1832, having administered it internally in asthma and scarlet fever, and by *inhalation* in lung diseases. So near did he come to the great discovery.

It is one of the remarkable coincidences of history that in the year 1831, within a few months, three chemists in as many different countries, simultaneously discovered chloroform. They were: Samuel Guthrie, of America; Liebig, of Germany; Soubeiran, of France. Dr Guthrie, with only an insignificant apparatus, invented largely by himself. The others, surrounded by the best appliances which their native lands could offer. The facts so far are not disputed. The only question is as to the priority of publication—who first announced his discovery to the world.

It would hardly interest us to present all the data on which is based the claim that in Silliman's Journal, already quoted, Guthrie published an account of his discovery a few weeks in advance of the announcement of the other claimants.

All we can attempt here is to give the conclusions arrived at by responsible medical associations in this country and Europe.

Liebig and Soubeiran fought out their claim for priority between themselves at an early date. That of Dr Guthrie not being considered. The authorities of Germany sustained their champion. Those of France declared Soubeiran the winner.

After a time the medical organizations conducted thorough investigations through their appointed Committees.

A Committee of the Chicago Medical Society reported to that body, February 6, 1888. After briefly giving the data on which each contestant based his claim, they reported that the German had put the Frenchman out of the game, and that Guthrie's priority over both was fully established. They say, "We therefore conclude that Dr Samuel Guthrie is justly entitled to the honor of first discovering chloroform, and that his publication of it antedates that of either Liebig or Soubeiran." This report was accepted.

Again the Chicago Medical Society comes back to the subject April 4, 1903, and in its bulletin of that date, 15 years after the report I have quoted, another committee gives at length the clearest, and most satisfactory statement of the controversy, which I have found, and declares that Dr Guthrie discovered and announced his discovery, of chloroform before all other claimants.

The Chicago Medical Society seems to have interested itself very much in Dr Guthrie's claim. I have referred to the paper of Dr Burr, presented in 1903 or '04. In the Chicago Medical Record for August, 1887, there is an article by him on the same subject.

Some of the papers I have consulted attach much importance to the following, which I find reported by Dr Burr without date or reference, as follows: "A committee of the Medico-Chirurgical Society of Edinburgh, appointed to investigate these claims to priority, awarded Dr Guthrie "the merit of first having published an account of the therapeutic effects of chloroform as a diffusable stimulant."

To my mind the claim of priority appears to be completely established and the controversy should cease. But it was, perhaps, too much to expect that at the date of this transaction European savants should admit that an American could anticipate them in any scientific discovery.

To have discovered not only a new chemical, but also to develop all its wonderful properties, was too much to expect even from the inventive and brilliant mind of Dr Guthrie.

On October 16, 1846, at the Massachusetts General Hospital, Boston, Dr William G. Morton successfully demonstrated the anesthetic properties of sulphuric ether, on a patient on whom Dr J. C. Warren operated for tumor. By 1847 the idea of anes-

thetia was in the air, for the facile genius of Morton had given it wings.

Early in that Year, Dr James Y. Simpson, of Edinburgh, Scotland, began to use anesthesia by ether, in his extensive obstetric practice. Not entirely satisfied with its effects, he and his two assistants began experimenting on themselves, in the hope of finding something more available. After many unsuccessful attempts, with various drugs, Dr Simpson at last, on the night of November 4, 1847, brought out a bottle of chloroform, a heavy fluid, of which they knew little. They all inhaled it freely, with the result that they dropped insensible upon the floor. When consciousness returned, they were a happy set of men for the possibility of anesthesia by chloroform was proved.

Guthrie published his discovery of chloroform in October, 1831.

Fifteen years afterward, Morton demonstrated anesthesia by ether, October 16, 1846.

One year later, Simpson proved chloroform an anesthetic, November 4, 1847.

We have here three successive links, each indispensable to one great result, whose mighty power for the relief of human suffering reaches world-wide.

Guthrie had unknowingly laid a deep and wide foundation. Simpson starting with anesthesia already developed by Morton, built a temple which seems likely to endure for ages, or until some mightier genius shall do better.

Let us say, "Guthrie, Morton and Simpson, they gave anesthesia to the world."

A personal note may perhaps be permitted.

An office student, returning in 1849, from a course of medical lectures he had attended in this city the previous winter, brought enthusiastic report of the inhalation of ether in operations in the college clinic. There was no hospital in this city then. At that time it was supposed to be necessary to dilute the sulphuric ether used, with an equal portion of water, to remove the alcohol it contained, and to decant the lighter portion for inhalation. This was the co-called letheon of that day. I soon began the use of ether in obstetric practice. The fathers objected and talked about the apple and the curse laid upon Eve. The mothers did not see it that way, but as soon as their fears of danger were removed, gladly accepted the wonderful relief it



gave them. Meeting no serious accident or complication in its use, I was soon employing it freely in a country practice. There were some serious difficulties in its use as an anesthetic. Its inflammable properties made its use at night difficult, and at times hazardous, not to mention the difficulty of getting patients to inhale a sufficient quantity from a cone made from a napkin, in the absence of any efficient assistant or nurse. In 1847 Simpson discovered the anesthetic properties of chloroform. It was at once evident that it possessed great advantages over ether, and in the early fifties I began its use, administered it freely, and always without any serious accident. At the opening of the Civil War, American surgeons were prepared for its use, and then was developed its wonderful adaptation to army surgery.

During three years of army life, I gave chloroform, or was present when it was used, many hundreds of times. On the Georgia campaign of 1864, at the General Field Hospital, Department of the Cumberland, where I was on duty for six months, we handled 15,000 wounded men, and performed 200 capital operations, and many hundreds of minor ones, all of any importance under chloroform. Here it was a frequent event to have patients brought in who were greatly exhausted by copious hemorrhages, and whose condition demanded amputation or other serious operations. Repeatedly when asked to advise in such cases, I said that the patient was not unlikely to die if chloroformed, but was sure to die from shock without it; and if he was to die let it be a painless death. It was a notable fact that under these unfavorable conditions we did not lose a case from chloroforming.

I have repeatedly seen patients, even in a feeble condition, kept an hour, or even more, completely under the effects of chloroform. Some years ago I gave it to a patient to whom I was called, with post partum hemorrhage and retained placenta. She was faint and almost exhausted from loss of blood, and yet resisted violently every effort to relieve her. It was the most appalling responsibility I ever faced. No advice could be had in time to be of any avail. It was chloroform or death. I chloroformed her with the imminent probability of her dying in my hands. I succeeded with the greatest difficulty in removing the placenta. Pulse and respiration had almost entirely ceased. Nitrite of Amyl restored respiration, the flickering pulse rallied, the patient lived and fully recovered.

I think it is accepted that even ether anesthesia is sometimes attended with serious after results, and although I have never

seen a fatal result from the administration of anesthetics, we all know that it is possible, even when every precaution is observed.

Is it surprising that one with the experiences I have related, should ask, why has chloroform been almost abandoned by the surgeon? It may be a question whether there are not compensations in its use, which call for a re-consideration of the relative value of the two anesthetics, and a larger use of chloroform in surgery.

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## The Function of Therapeutic Exercises in Lateral Curvature

HENRY O. FEISS, CLEVELAND, O.

In the condition called lateral curvature of the spine, it is important to remember that we are dealing, not merely with a local deformity, but one which implies a general change in shape in the entire torso, and often in parts more distant, so that we must not be tempted to direct our efforts upon the spinal column taken by itself.

It is also important to remember that we are dealing with a non-organic condition in the great majority of cases, a condition brought on, not by disease in the bones, not by disease in the soft parts, but by muscular weakness and insufficiency, or by disproportion between muscular strain and ligamentous maintenance.

The condition usually takes place as a result of faulty position, faulty in being insufficient for purposes of shapely balancing. Then if the position or attitude which was physiological in the start is prolonged so much as to become habitual, lateral curvature results.

At the start habitual cases are usually manifested by long sweeping curves of the spinous processes, with or without a prominent hip, and usually with a slight dorsal convexity on one side of the thorax. It is this developing type in which therapeutic exercises have a most important scope, for such a curve is often the beginning of a more marked and rigid deformity, so that to get hold of these cases early is most satisfactory. We often find that in these early cases mere mental stimulation is enough to bring the torso into symmetry and beauty of contour. If such mental stimulation is sufficient, a few active or passive motions carried out systematically at regular intervals for a certain period of time may indeed be all that is required to divert nature's progress

from the pathological path back into the physiological. This mental effort cannot be emphasized too strongly, as a person carrying out certain therapeutic exercises with a view to holding himself correctly, will at times, when he is not exercising, unconsciously attempt to hold himself in what he is taught to be the best possible attitude. If the effect of these exercises is to be gotten quickly it implies that the beginning deformity has not come into a fixed stage, that all motion between the vertebrae, which is normal is still present, that ligaments are still firm and of symmetrical strength, and that the muscles are not too far weakened.

We come next to a type which represents a stage when distortion has actually begun, and just begun, when the dorsal region of the spinal column, with the thorax attached, has twisted as such upon the underlying torso, and when the long convex sweep has already become fairly permanent, so that even if the patient is reminded to straighten himself up, and taught how, the deformity cannot be quite obliterated. The function of exercises in these cases is a more direct one. Whatever the cause of these cases be, we can always figure on a symmetrical muscular strain, because even if muscular weakness has not been a factor in the etiology, this muscular weakness is bound to come in time, to one side or the other in different sets of muscles, because the origin and insertion points gain different relative positions on the two sides. This, indeed, is rather an unbalancing than a true weakness, and may be regarded as such. The function of exercises here is to make up for the insufficiency by cultivating the individual use of certain muscles or sets of muscles, as well as to bring about a subjective understanding for using these muscles actively, so that the total result is towards a symmetrical balancing of the body. If deformity is at all marked, as in the ribs, or in the column itself, we resort to manipulative methods applying pressure and leverage force in such a way as to counteract the vicious tendencies of nature, using of course, the simplest possible measures.

We next come to a set of cases which may be regarded as less hopeful, but in which radical improvement is still implied, providing the condition is well enough understood, that the separate elements may be analyzed and worked upon with more individual care. We find in these cases a rather marked lateral dorsal curve of the spinous processes, and a sharp posterior rib deformity on the convex side of the curve. Marked folds usually appear under the opposite scapula, and over the corresponding



hip, which is also prominent. There may be inequality in the length of the legs and sloping of the pelvis. This is only a rough description of a very common type. If we dissected such a torso we would find that the fronts of the bodies of the dorsal vertebrae have rotated towards the side of the convexity of the curve and that the lumbar vertebrae have rotated in the opposite direction, but we need only look at the rib prominence to see how fixed and permanent the pathological anatomy has already become. The principle of dealing with such a case is somewhat different from those in which the prognosis is more favorable, for in these the curves and contours have already affected the shape of the bones to greater or less degree. We must in the first place assume that asymmetry once begun, the tendency for greater asymmetry becomes proportionately greater. In other words, the fact that the patient is already deformed is usually a pretty good sign that the deformity is going to get worse and that we ought to do everything possible to counteract this tendency. In the second place we ought to understand that even if we cannot mould the patient's back into its original shape we may be able to give it an apparent symmetry which for practical purposes may be all that is required. For example, given a definite and fixed curve in the spinal column we may not be able to obliterate that curve, but we may be able to give a compensatory curve which throws the body into a better balance. We can further by stretching the spinal column with appropriate apparatus bring about a general obliteration of all the curves by doing which we are at the same time stretching many of the tightened muscles and fascia which span an arc of the curve, like the bow-string of a bow.

If we gain a definite amount of flexibility especially in the lumbar region, and it is only in this region that we can hope for much gain, we can often bring about sufficient play to let the rest of the spine assume a more symmetrical attitude. In the dorsal region we can never hope, after the column has become fixed, to regain a great amount of flexibility in toto and our aim is usually to make the lateral curve turn so as to become a posterior convexity.

All force brought to bear upon the rib deformity ought to be exerted with a view to doing everything possible to bring the column itself back into the straight. This not only means a correct application of the force itself, but the correct application of counter force or resistance, because the whole thorax takes part in the deformity and if the resistance is not furnished in the cor-

rect relation to the pressure this very resistance may do more harm than the correcting force is doing good. An admirable way to bring about correct pressure is to put the whole body on a stretch and then apply pressure upon the rib deformity, or second, to hyperextend the body and bring the force to bear in that way. In the ribs, the most we can hope for at first by application of pressure is to gain a flexibility which will permit the straightening column to pull correctly upon the convexity in the ribs.

It is not our purpose to go into the details of the application of the various kinds of exercises which may be used. We wish simply to hint at the relation between the function and the application and we may be able to see from this slight sketch that the first function is to cultivate the active forces in the muscles both by mental stimulation and local practice, secondly, to bring into play a certain power of mobility in such joints which has become comparatively fixed by the pathological process, and thirdly, to stretch all factors, which on account of their tightness would interfere with such mobility as we are able to gain.

## The Management of Occipito-Posterior Positions.

BY ARTHUR H. BILL, M. D., CLEVELAND

State House-Surgeon of the New York Lying-In Hospital

There is perhaps no one thing in obstetrics which is more annoying to the physician than a persistent occipito-posterior position, so that in general discussion of obstetrical problems, one of the first questions asked, as a rule, is "how do you handle posterior positions?"

In this short paper I shall not attempt to discuss the various methods employed for preventing these positions and for correcting them when already present, previous to the onset of labor and during labor before the rupture of the membranes,—I mean such methods as postural treatment, external and combined manipulation, etc.,—but I shall confine myself to those occurrences of posterior position which, in the course of labor, form such an obstacle that it becomes necessary to resort to operative interference for the accomplishment of the delivery. It is in these cases that there is such a marked difference of opinion and uncertainty as to the safest and best method of procedure, and on account of this uncertainty there is usually a tendency to let the case take its own course and only interfere, often too late, when this is an

absolute necessity in order to save the life of the mother or child.

Of the more important methods the following may be mentioned—(1) the internal procedure known as podalic version, which, however, only comes into consideration in cases in which the head is unengaged, and in these cases there is in all probability a contraction of the pelvic inlet, which would in itself entirely govern the method of procedure, and perhaps form a contraindication to the version. Then too the version is often impossible on account of the extreme degree of contraction of the uterus. For these reasons it would seem that the cases in which podalic version could be performed, for the correction of the faulty position alone, are rare indeed. (2) The various methods of delivering with the aid of forceps. Of these may be mentioned—

(a) That in which no attempt whatever is made to rotate the head to an occipito-anterior position. Here the forceps are applied in the axis of the pelvis and irrespective of the head, and are kept in this position grasping the head obliquely, unless spontaneous rotation occurs, which however is usually not the case. For the forceps when applied in this position form in themselves an additional obstacle to the rotation. If the head fails to rotate, which is usually the case, it is delivered in the posterior position. In connection with this method, it is noteworthy that in the clinics in which it is in vogue, namely in Germany and Austria, the number of lacerations of the perineum and of episiotomies is exceedingly large, as is natural to suppose when a head is delivered with the occiput to the rear.

(b) Another method used considerably in this country, as well as in certain foreign clinics, consists in applying the forceps in the same way as in the previous method, namely with regard to the pelvis, and in attempting to rotate the head at the same time as the traction is made. Here it is evident that forceps applied obliquely to the head, that is to one of its longer diameters, are in no position to act well as rotators, for, when the attempt is made, they frequently slip around the head instead of turning it, and thus cause injuries to it, and furthermore the wider separation of the blades is conducive to lacerations of the maternal soft parts.

(c) A third method is the one first described by Scanzoni of Prague in his textbook of obstetrics and commonly known as the Scanzoni maneuver. This maneuver, which was strongly opposed in Germany, as well as in Prague and other parts of Austria, was taken up and developed by the French, especially in the Tarnier and Baudelocque Clinics in Paris. It consists of two



distinct applications of the forceps. First, they are applied directly to the sides of the head with the concavity of their pelvic curve anterior, as if to an anterior position. Thus the pelvic curve of the forceps looks toward the face instead of toward the occiput as in anterior positions. Then, with a large swinging movement of the handles, so as to keep the blades of the forceps in the pelvic axis, the head is rotated until the occiput is anterior. This part of the maneuver is a rotation pure and simple without simultaneous traction. When the occiput is anterior, the forceps are naturally inverted and must be removed and reapplied, as to a head in a normal anterior position, in order to complete the delivery. After the rotation is completed and before removing the inverted forceps it is well to draw the head down slightly to fix it more firmly in its new position and thus prevent a return to its former posterior position.

In this country, this maneuver has been recommended chiefly and almost exclusively by Williams of Baltimore, nearly all of the other American writers on obstetrics failing to mention it at all, and condemning attempts at rotation in general as dangerous and usually impossible. Edgar has experimented with a modification of this maneuver, in which he applies the forceps in an inverted position, that is with the concavity of their pelvic curve to the rear and looking toward the occiput, and then rotates and delivers without a second application, but this original application is so difficult and confusing as to be impracticable, except in those cases in which the sagittal suture is nearly transverse, the occiput being only slightly posterior.

The various methods of increasing the flexion of the head serve a useful purpose in cases in which this is possible, but inasmuch as the purpose of this paper is to consider only those cases in which immediate delivery is indicated, I shall not consider them in detail. Other methods of performing rotation, such as the use of the vectis, of one blade of the forceps, etc., I shall not describe.

In view of the slowness with which the Scanzoni maneuver, which I have found to be an excellent one and to give far the best results of any so far described, is being adopted in this country, it would seem that any good results obtained from its use would be worth reporting, and so I wish to mention several cases in which I used it while connected with the New York Lying-In Hospital.

The first case is that of Mrs. K., a primipara, who had been

in labor 36 hours before admission to the Hospital. The membranes had ruptured eight hours previously. the uterus was dry and firmly contracted. On abdominal palpation the fetal head could be felt above the brim of the pelvis, and could not be forced into it. The fetal heart sounds were heard to the right of and below the umbilicus, rate 110 per minute. The external measurements of the pelvis were:

Between the iliac spines.....	23 cm.
Between the iliac crests.....	27 cm.
Right oblique diameter.....	21 cm.
Left oblique diameter.....	20.5 cm.
External conjugate diameter.....	18.5 cm.

Internal examination showed the head to be above the brim in the R. O. P. position. The membranes were ruptured and there was a well marked caput succedaneum present. The diagonal conjugate measured 10 cm., from which the true conjugate was estimated as 8.25 cm. Anterior rotation with the hand was impossible, and the Tarnier axis traction forceps were applied to the head in the occipito-posterior position, the application being made with reference to the pelvis and grasping the head over the mastoid and temporal regions. The head was then drawn down into the pelvis with some difficulty, and when entirely through the cervix, the axis traction forceps were removed and the solid blade forceps applied directly to the sides of the head and the latter rotated and delivered by Scanzoni's maneuver. The child weighed 3400 grams. There was a slight laceration of the perineum which was started by the high forceps. No difficulty was encountered in performing the rotation.

The second case is that of Mrs. M., fourth pregnancy, who had been in labor 28 hours. The membranes had ruptured six hours previously. An unsuccessful attempt had been made by the physician in charge of the case to deliver the child with forceps before the patient was brought to the Hospital. When seen at the Hospital, the uterus was thoroughly contracted. The head was above the brim in the R. O. P. position. The os was large enough to admit the whole hand. The external measurements of the pelvis were:

Between the iliac spines.....	24 cm.
Between the iliac crests.....	26 cm.
Right oblique diameter.....	21.5 cm.
Left oblique diameter.....	21.5 cm.
External conjugate diameter .....	19.5 cm.

The diagonal conjugate measured 10.5 cm., from which the

true conjugate was estimated at 8.5 cm., there being a simple flat pelvis of moderate degree. Here as in the previous case it was impossible to rotate the head with the hand on account of the firm contraction of the uterus, and a version was out of the question for the same reason, and so the Tarnier forceps were applied to the head in the R. O. P. position and the latter drawn into the pelvis, although still in the R. O. P. position, as I made no attempt to rotate the head while it was within the cervix. The Tarnier forceps were then removed and the solid blade forceps applied to the sides of the head, the latter rotated, the forceps reapplied to the head in its anterior position and delivery completed. The child weighed 4000 grams. There was no laceration of the maternal soft parts.

CASE III: Yetta S., second pregnancy. The position was R. O. P., giving rise to prolonged and difficult labor. Operative interference was resorted to in the interest of the child, the fetal heart having fallen in rate to 90 per minute. In this case the head was engaged and the largest diameter had passed the pelvic brim but was well within the cervix which was dilated to about the size of four fingers. The cervix was dilated manually to full dilatation and the solid blade forceps applied to the sides of the head, that is in the oblique diameter of the pelvis. Here again I made no attempt at rotation until the head had been drawn entirely through the cervix, and then the Scanzoni maneuver was carried out without much difficulty, and without injury to the maternal soft parts. I think that the importance of avoiding all attempts at rotation within the cervix is self-evident, on account of the danger of rupturing the lower uterine segment, for the cervix grasped the head very firmly.

CASE IV: Catherine G., second pregnancy. The position of the head was R. O. P., the sagittal suture being in the oblique diameter of the pelvis. The case was almost a parallel of the preceding one, and the indication for forceps was the same, and I shall not take your time in giving the details. No difficulty was met with in rotating the head after it had been drawn through the cervix. There was no injury to the mother or child.

CASE V: Bessie H., first pregnancy. The position of the head was L. O. P., the occiput being just posterior to the transverse diameter of the pelvis. There was absolutely no progress in the labor and forceps were resorted to in the interest of the mother. The head was entirely out of the cervix and just at the spines of the ischia. In this case, as would be expected, the application of the forceps to the sides of the head was somewhat more difficult on account of the nearly transverse position, and no doubt was greatly facilitated by the use of the solid blade forceps, of which I have spoken. The forceps used as rotators in



all these cases were those known as the Tucker-McLane solid blade forceps. They have a peculiar advantage in these cases over the fenestrated forceps in that they have a perfectly smooth surface and are somewhat thinner and narrower, allowing them to slip around the vaginal wall without difficulty and without danger of damaging it. This greatly facilitates the maneuver both in making the original application and in rotating the head after the application. In the present case the forceps were applied with the concavity toward the occiput and after rotation a second application was unnecessary. This was almost as easy as the reverse application would have been, since the sagittal suture was almost in the transverse diameter. There was no laceration of the soft parts.

CASE VI, Nellie C., first pregnancy. The case was one of protracted and difficult labor. The operation was performed in the interest of the child. The position was L. O. P., the head being in the pelvis and entirely through the cervix. The pelvis was normal with the exception of a very prominent spine of the ischium on the right side, which projected about 3 cm. into the pelvic cavity. This spine had caused an obstruction to the further descent and had promoted anterior rotation of the sinciput. Fortunately, the other side of the pelvis was of normal size and by forcibly flexing the head and forcing it to the left side it was possible to rotate the occiput to the front and deliver it in this position. Here as in the preceding cases, the forceps were applied directly to the sides of the head. In this case especially it would seem that rotation with any other application would have been absolutely impossible on account of the small space in which to work.

CASE VII and VIII. The next two cases I have put together and they are very similar. Both were primiparae. The occiput in each case was directly in the hollow of the sacrum and the head was at the pelvic outlet. In these cases the application of the forceps was as easy as in a completely rotated anterior position. It would have been comparatively easy to deliver the head in the posterior position, but on account of the greater chance of saving the perineum, the head was rotated through an angle of  $180^{\circ}$  bringing the occiput to the front, after which the forceps were re-applied and the delivery completed without a laceration of the perineum in either case.

To hurriedly sum up these cases, it will be seen that they furnish examples of occipito-posterior positions in all the various planes of the pelvis; at the brim and complicated by a moderate contraction of the pelvic inlet, engaged but within the cervix, in the true pelvis but above the spines, and at the pelvic outlet. In all of these cases practically the same maneuver was carried out to accomplish the rotation, and in each case it was successful. In

the last two cases, in which the occiput was in the hollow of the sacrum, it is barely possible that in time there would have been a spontaneous though difficult delivery. Of course the occiput would have been to the rear, and as the heads were both large, the delivery would probably have been accompanied by a laceration of the perineum, which was avoided in both cases by bringing the occiput to the front, even though it was necessary to rotate the head through an angle of  $180^{\circ}$ .

In view of the good results accompanying this procedure, it would seem to be a perfectly justifiable and advisable one in all such cases, to prevent the unfavorable delivery in the posterior position. It is an operation which naturally appeals to one since it converts the abnormal into the normal position.

In regard to the effect upon the child, no bad results were noticed in any of these cases, and it would seem that, from a consideration of the safety of the child, the rotation of the head may be said to be a perfectly safe procedure. After experimenting with this maneuver and after trying it thoroughly in the Tarnier clinic in Paris, Budin and Demelin have concluded that there is no danger whatever to the child even in those cases, which are rare, in which the shoulders do not follow the head in its rotation, and even though the head be rotated through an angle of  $180^{\circ}$ .

I have reported this short series of occipito-posterior cases in view of the fact that this method of treatment is not generally adopted, and by many held to be impracticable and usually impossible. It would certainly seem that failures were due more often to the method of performing the maneuver than to a faulty principle. It is an operation in which all the details should be closely followed, and in closing I wish to mention a few points which are essential to its success and safety.

(1) The blades should be applied accurately to the sides of the head, and not simply with regard to the pelvis. This is more easily accomplished, especially in the oblique and nearly transverse positions, by means of the solid blade forceps.

(2) The head should be held firmly in the grasp of the forceps during the rotation to prevent slipping and a possible consequent injury to it.

(3) In cases in which the sagittal suture is in the oblique diameter of the pelvis it is absolutely necessary to draw the handles of the forceps well over to the thigh opposite the occiput before rotating.

(4) In performing the rotation, the blades of the forceps should be kept as nearly as possible in the axis of the pelvis by a large swinging movement of the handles, which thus describe a large circle externally. If the last two rules be strictly adhered to, it will be found that the pelvic curve of the forceps will offer no obstacle whatever to the rotation, and furnish no disadvantages when compared with perfectly straight forceps the use of which has been suggested.

(5) No attempt at rotation should be made while the head is within the cervix, as it is a dangerous procedure, liable to be followed by a rupture of the lower uterine segment. In cases in which the head is high up and partially within the cervix it is far better to draw it entirely out of the cervix first of all, and to perform the rotation lower down in the pelvis.

(6) If there is a tendency for the head to return to its posterior position immediately after removing the forceps for the reapplication, this may usually be overcome by drawing it down somewhat after complete rotation and before removing the blades. In more obstinate cases the head may be held with the fingers of one hand applied along its side during the removal and reapplication of the forceps, or simply one blade of the forceps may be removed and reapplied before the removal of the other, and thus one blade is kept constantly in a position to prevent a return to the posterior position. This latter procedure is, however, rarely necessary.

If these essential points are carefully followed, the operator will meet with success in practically all posterior cases, and be able to avoid lacerations of the maternal soft parts which would in all probability occur if the head were delivered in the occipito-posterior position.

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### As Others See Us

An old man with a stomachache will be in a parlous state in Ohio if Miss Anna S. Hall and Representative Hunt of Cincinnati have their way. The latter, presumably at the instance of the former, has introduced a bill into the Ohio House of Representatives, making it lawful "to kill a person suffering from intense pain and for whose recovery there is no hope." Everyone who has experienced it will fully admit that the pain of a stomachache may be intense, and no one will deny that there is no hope of recovery from old age. It is true, the bill provides an



imaginary safeguard in that the patient's consent must first be obtained by some one who is not a relative or a presumptive heir; but a man, or a woman, with a pain legally defined as intense, may temporarily be *non compos* and weakly answer in the affirmative—and then the game is up. It is hardly possible to treat this question seriously, for it is too hideous to be regarded as anything but a grim joke. It is within the knowledge of almost everyone that some relative or friend, now living, has been believed, and even declared by the physician in attendance, to be beyond the hope of recovery. Consumptives, who once were gasping for breath and were momentarily expected to yield up their last sigh, are to-day leading an active and useful life; persons suffering from a tumor, pronounced cancerous and incurable by a council of physicians, have recovered and are carrying on their work with comfort to themselves and cheer to their families; the same is true of innumerable others who have been condemned to speedy dissolution and are yet alive to shame their doctors and rejoice their loved ones. "While there is life there is hope" is a saying so true that to deny it is an absurdity. There is a power in therapeutics, and a still greater power in the recuperative forces of nature, which it is inane to ignore. The Ohio legislators failed to reject this bill, when a motion to that effect was made, by a vote of 79 to 23, but we refuse to believe that this is a measure of the intelligence of this body of Solons. The seventy-nine may have thought it would be well to have some discussion on the subject before the final rejection of this criminal suggestion, in order to instruct fool legislators in other States who might be contemplating a similar move, or they may have had some other motive; but that seventy-nine out of 102 men in any assembly outside of a lunatic asylum can seriously support this bill, which one sane member called "an insult to the intelligence of the House," passes the bounds of credulity. The thing is a silly joke, and we are unable to regard it as anything else.—*The Medical Record*.

# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
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## EDITORIAL

### Our Delayed Journal

In explanation of the excessive delay which has marked the appearance of the January and February numbers of the Journal, we beg leave to state that we have suffered, as so many other publications throughout the country have suffered, from the effects of the strike among the local printing and allied trades. That there are always two sides to every question is conceded, but in the present instance right and justice have been immeasurably on the side of the employers, and we only wish that it were in our power to aid more effectually in the fight for the "open shop."

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### Legalized Homicide

The introduction of a bill into the Ohio Legislature to legalize the taking of life in incurable cases is certainly of great interest to the medical profession, because the decision as to when such a law should be invoked would depend upon the verdict of a committee of physicians.

No fear need be entertained by any medical man, however, that he will be called upon to exercise this function; such a monstrosity of injustice will hardly become a law, for even if it

were unwisely sanctioned by the Legislature, it would immediately be declared unconstitutional since it directly conflicts with the articles of our national constitution.

No one realizes more than the physician that our prognoses are, at times, at fault, and it has fallen to the lot of almost every practitioner to see the recovery of some cases regarded by him as hopelessly incurable. This uncertainty as to the ultimate outcome of the disease would alone cause a jury of medical men to hesitate if they were called upon to decide as to the advisability of ending life in some apparently incurable case.

Innumerable complications would of necessity, arise in carrying out such a law. Whose province would it be to invoke such a law? The incurable patient is often seen to cling to life with the tenacity of despair even if he be suffering greatly. In many incurable cases there are periods of agony when death would be greatly welcomed by the sufferer, only to be followed by periods of comparative comfort when life may seem very sweet and during which valuable work may be performed: as an example of this sort may be quoted the late president of Chicago University, Dr. Harper, who though doomed from the nature of his ailment, continued his valuable labors until almost the day of his death, and yet his condition was known to be incurable months previously.

If the friends were to call for the employment of such a measure, it would open great possibilities for wrong in disposing of individuals who are in the way, and even if relatives were actuated by the most humanitarian motives, their actions would be considered by many as a reproach.

Far more important is the moral principle involved. The scriptural injunction "Thou shalt not kill," like almost every rule has to have its exceptions, but these must be for valid and satisfactory reasons. The murderer is legally executed because such action is considered necessary for the protection of the lives of the community, and even against this form of homicide there has arisen a storm of protest, and some countries and states have even abolished the death penalty entirely. The destruction of the life of an unborn infant is at times imperative if the more valuable life of the mother is imperiled and no objection can be taken to such a proceeding by a sensible person. These exceptions are, however, entirely aside from the question of taking the life of a person whose existence does not endanger anyone else.

Undoubtedly many instances occur in which physicians as well



as relatives and friends pray that death may humanely end the sufferings of a patient who is hopelessly ill, but few men would care to accept the responsibility of ending the sufferer's existence.

The chances for the passing of such an act are very remote. We feel sure that the verdict of the profession would be overwhelmingly against it and after all, they are the most reliable judges of the matter.

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### Cleveland Medical Library Association

The healthy growth of the Cleveland Medical Library Association as shown in the reports of its officers at its recent annual meeting and the plans for its immediate future, is a matter of great congratulation. For while this growth has been due to the enthusiastic work of a comparatively small group of men who have always been foremost in forwarding the interests of the Library, the results of their efforts cannot but make for the good of the profession at large in offering greater opportunities for medical reading which will be placed at the disposal of those who choose to avail themselves of them through membership in the Association.

The fact that ample space has been provided in the auditorium of the new building for meetings of the Academy of Medicine and other medical societies, is another great advance. In the past these societies have been obliged to depend on the courtesy of assembly rooms in various quarters, while now there is a prospect that they will soon be accommodated in appropriate surroundings.

All these new opportunities imply increased financial obligations for the Association and should lead members of the profession who have not yet done so to support the Library by becoming members and giving it the benefit of their membership fees, which will be a very modest return for the privileges offered.

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### The New Regulations of the Board of Health

Whatever else may be said of these new regulations, it must be acknowledged that they are exhaustive to a degree, so thorough, indeed, that if the vast amount of detail work as outlined, is faithfully carried out, we should suppose that the present corps of medical inspectors, sanitary police, etc., under the control of the department, would have to be increased fourfold.

Throughout these regulations there are a number of points

which are of interest to us as practicing physicians to which it is quite worth while to call attention. We notice under Part 1, Title 1, Section 23, that among the communicable diseases are included epidemic dysentery, impetigo, contagiosa, puerperal fever, influenza, malaria and venereal diseases, in addition to those diseases which are commonly thought of as communicable and contagious in the ordinary sense of that term.

Under Part 3, Title 1, Section 1, it is stated that "every physician, surgeon, nurse, midwife or any other person attending any case of communicable disease, shall within 12 hours after the recognition of the disease report the same to the Health Office."

Under Title 2, Section 1, we are told that any person having a communicable disease other than tuberculosis, shall in no way mingle with the public.

While it cannot be denied that malaria is a communicable disease, using that word in its technical sense, it is difficult to understand the reason for barring the unfortunate individual who happens to be the victim of a malarial infection from mingling with the public. (Why not put the ban upon the unhappy mosquito?) It may also be asked why should puerperal fever be included among the communicable diseases?

In so far as the law applies to the reporting of the so-called communicable diseases, we do not believe that this law in its application to venereal diseases, will be respected in any way but in its breach; and we question, further, whether such a law could be held to be constitutional. In the endeavor to secure laws which can and will be lived up to, it is, in our judgment, to be regretted that the attempt should be made to establish any enactment which can never be enforced.

#### CARE OF CONTAGIOUS CASES

Under Part 3, Title 2, Section 4, 5 and 6, definite instructions are laid down for the care of a case of pestilential disease, which includes diphtheria, measles, scarlet fever, small pox, varicella, cholera, plague, typhus and yellow fever. The rules as outlined, cover very satisfactorily the various points for the protection of the individual and the disinfection of the discharges in these cases. It is to be regretted that the disinfectant solutions recommended for use are not definitely stated.

Under Part 4, Title 4, Section 1 and 2, we note that it is ordered that every physician, nurse or midwife in attendance at the birth of any child, shall file at the Health Office, upon each

Monday, the necessary data covering such birth or births which have occurred during the preceding week.

The importance of vital statistics has been all too little appreciated by the profession at large and every effort to increase their value should receive our heartiest commendation.

Hitherto it has been customary that births should be reported once a month. In our judgment, a far wiser provision would have been to make it a law that all births should be reported immediately, i. e. as soon as possible, and that a sufficiently heavy penalty be provided for those not reporting a birth within ten days. We have been told that the custom in vogue in Massachusetts, in which State a small fee is paid by the Health Office for the reporting of each individual birth, works out most satisfactorily, and although such a plan might be feasible in Cleveland, we should still urge the penalty for failure to report within the specified time.

Under Part 6, careful provision is made for the protection of the public against all unsanitary and unhygienic conditions.

That the regulations as outlined in detail can be enforced in any large measure, we do not believe. It is easy to frame rules and regulations covering such a multitude of points, but, as we noted above, it would be physically impossible for our Health Office as at present organized to enforce these regulations.

Under Title 4, there are four sections devoted to the regulations controlling spitting, a sad commentary upon the decency of the American public. If Section 1 alone were enforced, we should need as many sanitary police as there are inhabitants of our city over the age of 10, and an additional number to watch the sanitary police themselves.

Under Title 6, the penalty for any infraction of these regulations of the Board of Health is a fine of any sum not exceeding \$100. or imprisonment for any time not exceeding 90 days or both.

The whole question of public sanitation and hygiene seems to have been covered in these regulations, which are to be commended for their exhaustive thoroughness, but are yet to be proved of real value in tending to simplify and improve the departments controlled by our Health Office.

#### THE ALL IMPORTANT "IF"

Apropos of this important question of public control, and particularly as it applies to the reduction in frequency of those conditions incident to the general filth, dirt, smoke and the vulgar habit of spitting, we quote (*italics ours*) a paragraph from



an article by Dr T. Mitchell Prudden, in the New York Medical Record, for February 3, 1906. What is true in New York in this instance, is true also in Cleveland:

"If, in New York, the beneficent law against the *smoke pollution* of the air were enforced; if the *streets were properly cleaned*; if the great passenger transport systems were placed under competent sanitary supervision; if the Health Department were persistently alert in enforcing the *ordinance of the sanitary code* which relates to *spitting in public places*; and if we could get sweeping and dusting indoors intelligently done, we should have in this city, in my opinion, a fair outlook towards a great advance in the reduction of diseases of the respiratory organs. These are indeed large and difficult "*ifs*" and they do not appeal as strongly to the public as does the search for a new "*serum*," but the demand which they imply seems not unreasonable."

## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

**Lobar Pneumonia:** Albert Kohn, in the *Medical News* for December 23, believes that in the treatment of pneumonia, whenever possible the administration of drugs should be by the hypodermic method. In this way we use exact dosage, and know that the drugs are absorbed. Stomach medication in a patient with high temperature, septic, and with distention of the gastro-intestinal tract, affords but a poor and unreliable way of using drugs, and should never be used when indications are urgent, and only when the nature and quantities of the drug make hypodermic administration impossible. Oxygen is at the present time in pretty general use. Its efficacy is a mooted question; but in sudden collapse, dyspnea, and cyanotic states, it is of the greatest importance and the ordinary tip can be replaced to great advantage by a glass funnel.

Strychnin is a routine drug and whatever may be said theoretically, no one with enough experience can doubt its efficacy in a flagging heart. Its use must be hypodermic, and when the heart is wearing itself out, must be pushed to the physiological limit. When further medication is needed, camphor and oil furnishes a splendid diffusible stimulant. Sodio-benzoate of caffein is excellent, but must be guardedly given where there is delirium or restlessness. By stomach we may give ether and ammonia combinations as diffusible rapidly acting stimulants. In pulmonary edema, wet cups are strongly indicated; such may be easily applied by means of glasses over scarifications made with a sharp scalpel. At this point the free use of oxygen is of the greatest value. The combination of atropin and strychnin, with the addition of a small dose of nitroglycerin, all in one hypodermic, is an effective remedy; to this may be added the fluid extract of digitalis, if this drug has been reserved, hypodermically given. Another heart stimulant which he highly recommends, is the tincture of musk, a drug which has fallen into disuse from its expense, but to which he lays the turn of the tide in many a severe case. Depressing expectorants

should be avoided, the most useful being the German liquor ammonia anisata. The same Journal editorially calls attention to the increased incidence of pneumonia in the months between December and May, and the greater vulnerability of the aged, and insists upon the importance of tonic treatment during this period. Hare believes no plan of treatment suitable for all cases. In the face of an overwhelming toxemia; no treatment is of any avail. Alkaline diuretics and hepatic stimulants are important aids in combating the toxemia. The keynotes of treatment is that excessive and routine drugging is to be avoided, that each case of pneumonia requires vigorous stimulation when the occasion arrives; and that expectorants are rarely necessary.

### Arbutin:

In *American Medicine* for September 16, W. F. Waugh summarizes the actions of arbutin. It is diuretic, astringent, mildly antiseptic, and sedative for hyperesthetic conditions of the genito-urinary mucosa, and the urine contained therein. It combats putridity and sepsis, and ammoniacal conditions of the urine. He advises the substitution of arbutin for the plants containing it, as uva ursi, pipsissewa, etc. In acute affections, in catheter cystitis, with fetid ammoniacal urine, arbutin should be given in full dosage, up to a gram or more daily. He states that the latest French writers recommend up to 60 grains in 24 hours. In all cases the dose should be given every half hour to ensure continuous action, and in chronic cases he begins with one centigram ( $1/6$  grain) every half to an hour gradually increasing, until the urine is free from blood, and then in sufficient doses to keep it clear. The darkening of the urine from arbutin, must not be mistaken for that caused by overdoses of carbolic compounds like salol; frequent repetition is necessary; two thirds to three fourths grain at each dose, 10 to 20 grains a day and night, and more if found desirable. He has found that arbutin increases the amount of water, and also to some extent the solid excretion, and he uses it in a capsule, usually followed by taking some hot water.

### Digitalis:

Max Goepp, in *American Medicine* for September 23, states the three counterindications for digitalis, as hypertrophy with established compensation, degeneration of the myocardium, and high arterial tension. In the first case the drug is counterindicated chiefly because it is not needed, and not being needed causes overstimulation and distress. The chief counterindication to digitalis is fatty degeneration of the heart, and in advanced cases, when the cavities are much dilated, it must be used with great caution. The third counterindication is high arterial tension, and is found chiefly in the middle aged, and also in arteriosclerosis, generally; but even under these circumstances digitalis is advised by some, in combination with some vasodilator agent. He coincides with Butler in stating that the drug can be given for months without ill effects, and thinks highly of Merck's German digitalin, although he believes to begin with two milligrams ( $1/32$  grain) much too small, preferring to begin with three milligrams ( $1/20$  grain) and if the desired effect is not produced has no hesitation in increasing the dose up to five milligrams (one half grain) or even eight milligrams (one eighth). Digitalin also can be given hypodermically. Fritz Schwyzer in the *Medical News* for November 18, has found Cloetta's digitoxin superior to the

digitalin, and other digitoxins on the market, and it can be used whenever digitalis is indicated. Its chief advantage is that it can be given hypodermically without much pain and without danger of infection, and that in emergency it can be injected into the veins, with almost instant effect. The single dose is one third milligram three times a day per os or as an injection. He also calls special attention to its value as a safeguard in chloroform and other anesthetics. He thinks it a mistake to wait in such cases till the heart begins to fail, and advises the use of digitoxin as a preventive.

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**Nitroglycerin :** D. D. Stewart, in the *Journal A. M. A.*, calls attention to the tolerance to nitroglycerin, which is often too readily established, so rendering the drug of but little service. He details one case, in which in less than six months after an initial dose of one drop of a one percent solution of nitroglycerin, in a case of chronic nephritis such tolerance was established that a dose of 50 minimus of a ten percent solution (five minims of pure nitroglycerin) was taken four times daily with less effect on vascular tension than the initial dose of 1/100 grain. When it is desired to employ this drug for a considerable period for its effects on blood-pressure, the best rule of administration is in his opinion, to so proportion the dose that the intervals are comparatively short, never less than four times daily. The amount though sufficient to produce some subjective or objective effect, should never be more than just necessary to cause the slightest feeling of fullness in the head, or to slightly quicken the pulse. When a rather rapid increase seems necessary in order to maintain a constant effect, an equally important point is temporarily to discontinue the drug for two or more days, at intervals of two or three weeks. On its resumption, a much smaller initial dose will be required to produce physiologic effects than that last taken. It must be remembered that nitroglycerin, so far as we know, has absolutely no action in cases of chronic nephritis apart from its effect on vascular tension. It is only indicated in those cases in which the blood-pressure is persistently markedly high and in which ill consequences such as cerebral hemorrhage, or valvular disease of the heart, or stretching of its cavities, are to be feared. It must not be forgotten that probably a moderate amount of tension is actually conservative, and the drug must not be prescribed merely because the case is one of chronic nephritis. He regards it as most important that other measures to lower blood-pressure be coincidentally used and be tried alone. Aconite is often substituted for nitroglycerin with advantage in these cases.

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**Sodium Glycocholate:** In the *New York and Philadelphia Medical Journal* for September 30, H. Richardson, believes that the glycocholate of sodium is indicated in all disease where toxemia is a factor, and with few exceptions, where hepatic insufficiency exists. In many cases of malnutrition from want of proper absorption of fats, it will materially aid in building up a patient. Above all it is indicated in hepatic colic and gallstones, in the former it is almost a specific, and, in chronic constipation combined with the purgative habit, it is of great value. The dosage is about five grains three times a day, though as much as 15 grains may be



given without producing nausea. As the action of the drug is cumulative, owing to its resorption from the intestine, it is not necessary to keep up the full dose for any great length of time. In hepatic cholic it is advisable to continue its use for some months. The patient should take about four drams a month, regularly as a prophylactic. In all forms of hepatic insufficiency it is indicated as an hepatic stimulant in conjunction with other treatment. In arterial sclerosis, in conjunction with the administration of the inorganic salts of the plasma, in their proper percentage, it dissolves the cholesterin in the atheromatous deposits while the salts mentioned, tend to dissolve and to prevent the deposit of the calcium salts. In diabetes, when increased absorption of fats is necessary to replace the loss of carbohydrate, and in tuberculosis, where fat hunger is a pronounced symptom, Recosel, alleging the fat hunger is an etiological factor, sodium glycocholate is indicated.

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### Formic Acid :

In the *Medical Council* for December 1905, attention is called to the use of formic acid in rheumatism and allied conditions by Lewis B. Couch. As a result of his experience he uses a two and one half or three percent solution in sterile water. This he employs by subcutaneous injection, injecting five to eight drops at each point in 10 or 15 different points in the painful region. After some experience he learned that, in order to prevent the pain, it was best to inject the same amount of a one percent solution of cocaine at each point, wait for a few minutes and then inject the formic acid solution at the same points. He employs this in acute inflammatory rheumatism, making the injections at the inflamed joints, in arthritis deformans, in lumbago, injecting about eight to 10 points in a double row across the lumbar region; in sciatica, injecting along the line of the sciatic nerve and in neuralgia. The results are marvelous, rarely requiring treatment more than a few days and in arthritis deformans it is the only remedy of any practical permanent value.

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### Diabetes :

James Tyson in the *Therapeutic Gazette* for December, states that while there has not been much added to our knowledge of the treatment of diabetes of late years, its results on the whole may be considered more satisfactory in the last decade than prior to this period. It is needless to say that the dietetic treatment of diabetes mellitus is far more important than the medicinal, yet a proper hygiene is only second in importance. He knows of but one drug which is capable of reducing the quantity of glucose in the urine of a case of diabetes mellitus, the drug being opium. While all preparations of opium have this effect, gum opium is probably the most efficient, and codein has become the most popular preparation, chiefly because its use is unattended with unpleasant effects, although it is more expensive and less efficient than other opium preparations. It probably acts by quieting nervous irritability, but other drugs with similar action have failed, and the use of adrenalin has led to no practical results. He has no confidence in any other drug except arsenic, believing that the continuous use of small doses of Fowler's solution does favorably influence

the course of a diabetes mellitus, but whether as a tonic or a promoter of oxidation he does not know. The alkalies are useful in diabetes not so much as remedies, as a protection against its more serious complications, the acid intoxications; he thinks it a very good idea to have a diabetic patient more or less constantly under the use of alkalies, either in the shape of the citrates or the carbonates of potash, or the natural alkaline mineral waters. For the complications, the most important treatment is that directed to the disease itself. This relieves the pruritus, the eczemas, the tendency to boils, although the usual local remedies for these conditions may be employed. For diabetic coma, the indication is to alkalize the urine as quickly as possible, and while temporary benefit is obtained from the injection of salt solution, or better, weak alkaline solution, he has never seen any permanent benefit from its use.

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### Nephritis:

In the *American Journal of Medical Sciences*, for December, 1905, Cary B. Gamble, details the results of a salt-free diet in a case of chronic parenchymatous nephritis with dropsy. The effect was interesting for several reasons, and the results more permanent than by other treatment. In the first place, it brought about from its use, a reversal of the relation between the amount of fluid intake, and the amount of urine excreted; but besides this there were several points that are well worth considering. Before taking this diet, the patient had accomplished continuously of intense thirst, and to allay it was sipping water continuously. After salt was omitted from the food, and this was done absolutely as far as could be, the thirst disappeared, and the tongue and mucous membranes, instead of being dry as they formerly were, became soft, and there was so marked an absence of thirst that the patient had to be directed to take a certain amount of fluid in order to prevent too heavy a burden upon his crippled kidneys. Moreover, he felt better soon after starting it, than at any previous time during his illness, and his betterment has continued. He has found out himself that he is decidedly worse, and that the edema increases as soon as he goes back to salt in his food. As a result he has become almost a vegetarian, as he finds meat is very unpalatable without salt.

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### Insomnia:

Daniel R. Brower in *Merck's Archives* for December, 1905, states that in acute insanity insomnia is one of the most urgent symptoms and its relief is always a difficult problem. The surest hypnotic is chloral in 10 to 20 grain doses, largely diluted with water. It is contraindicated in cardiac impairment, and its disagreeable taste is often a barrier to its use. Chloralamid is one of the best substitutes for chloral in that it is less depressing to the heart and almost tasteless. In depressed cases, opium in the form of the deodorized tincture or aqueous extract is a valuable hypnotic, and relieves the psychic pain, better than anything in the Pharmacopœia. In the excited cases hyoscin hydrobromate is of great value; it is powerful, some patients bear it badly, but used with caution it will often produce satisfactory results. Finally in considering the therapy of acute insanity, we must always be mindful of attention to the general health of the patient.

**Cardiac Drugs:** Thomas E. Satterthwaite, in *American Medicine* for November 18, reports his clinical experiences with certain drug in heart disease. Lately a good deal has been written about the dangers of the nitrites, nitroglycerin and the nitrates. He believes there is some truth in such allegations, but on the whole the nitrites and nitrates are fairly safe remedies. According to Crile, nitrites cause a fall in the blood-pressure, but an increase in the strength of the heart, reducing also its frequency. The same may be said of the nitrates. In threatened heart failure he depends more on nitroglycerin than any other remedy, and has never seen it do any harm on these occasions. Doses of one milligram ( $1/64$  gr) may be given every five minutes for an hour or two. One of his cardiac patients took as much as 8 milligrams ( $1/8$  gr) during an asthmatic attack that lasted about a couple of hours, and by that time he was out of danger. Nitroglycerin or the nitrites in tablet form are apt to deteriorate with age, and so far as effects are concerned, they are always evanescent. If, however, nitrites are given in doses sufficient to produce violent throbbing in a patient with arteriosclerosis, they should be suspended. Iodin is a drug that is gradually but surely gaining in favor, and he finds it indispensable in the arteriosclerosis, of gout, syphilis, and old age. He believes it is preferable to any other medicine for thickened arteries, and if the iodids of sodium potassium or strontium are not well borne (which often happens, especially in old syphilitics) he gives hydriodic acid, or iodine in some other form. Arsenic is a drug on which much reliance may be placed, especially in the heart diseases of old people, when heart failure is not threatened. It is readily absorbed, and even in minute doses appears to improve both circulation and respiration. In large doses, however, he is inclined to think it a circulatory depressant. But in doses of from .3 milligram to .6 milligram ( $1/200$  to  $1/100$  gr) it relieves dyspnea, palpitation and edema to some extent, and regulates the pulse. He finds it soothing particularly in the arteriosclerosis of the aged, and in the restlessness of aortic regurgitation. Strychnin continues to maintain its character as a reliable heart stimulant and deservedly so, but it should be used with discretion. It is slow in passing the kidneys especially in the aged, and it is *not* soothing in the larger doses. If the dose exceeds one milligram ( $1/60$  gr.) it is apt to produce nervousness and insomnia, and he believes that success with strychnin lies in not increasing the dose beyond this point as a rule, and in not continuing the drug more than two weeks. He has used spartein sulphate satisfactorily both in heart weakness and in cardiac dropsy, has found it well borne, and has never seen any ill effects from its use.

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**Uterine Hemostatics:** Carroll Chase, in *Merck's Archives* for October states that while uterine hemostatics given internally act in various ways, there are two principal methods, by producing vasomotor contraction in the uterine blood-vessels as well as throughout the body, or by causing contraction of the uterine muscular tissue, thus to a certain extent cutting off the blood supply. There are four drugs noted as especially useful, ergot, hydrastinin (not hydrastin), cotarnin



hydrochlorid (named stypticin for sake of brevity) and adrenalin. The indications for and actions of ergot are so well known, that he simply states it is without doubt the most useful of all remedies of this class. Its action is both vasomotor and oxytocic. When ergot is to be given for any length of time, he much prefers ergotin (Bonjean) in chocolate-coated tablets. He thinks highly of stypticin and hydrastinin, the action of the two being similar, hydrastinin acting quickly, while stypticin has a slower, but more prolonged effect, and both drugs frequently have a remarkable power to stop various forms of uterine hemorrhage. The consensus of opinion seems to be that they are most valuable in first, menorrhagia, especially of young and other nulliparae; second climacteric hemorrhages not due to malignant disease; third, metrorrhagia due to shock or following operative procedures such as curettage, and fourth, frequently in the hemorrhage following miscarriage. He likes to combine the two alkaloids, because one acts quickly and the other more permanently and because one will occasionally act where the other will not; he usually gives  $\frac{1}{8}$  grain of hydrastinin and  $\frac{3}{4}$  grain of stypticin. While adrenalin is most favorably mentioned given internally for uterine hemorrhage he has had no personal experience with it. Its action is due to powerful vasomotor contraction.

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### Alcohol:

T. D. Crothers, in *Medicine* for November, states that one of the recent conclusions whose significance is confirmed by our daily experience, is that alcohol taken either as a drug, or as a beverage, has a cumulative action. The apparent good results are misleading and the invalid who has taken spirits in moderation for a long time, is suddenly seized with acute inflammation of the lungs or kidneys, which he attributes to some trivial cause, but in reality a sclerotic condition of the arteries is present combined with a feeble heart action which culminates in a fatal issue. The inference is very clear that the connection between the continuous anesthetic and narcotic action of alcohol, and the final collapse is more intimate than we realize. One of the serious questions which should be answered by every practical physician is this, "are we using alcohol as a remedy, and for what purpose, and on what physiological reasons do we expect to get results?" A few years ago it was quite common to note actual delirium tremens in the last stages of typhoid fever, where alcohol had been given very freely on the supposition that it was sustaining life, and he has seen two cases of pneumonia dying from alcoholic coma. In both alcohol was given very freely for several days before death. One conclusion which cannot be mistaken is that alcohol is an exceedingly dangerous remedy, and should not be used except with the utmost caution and care, also that there are many substitutes, whose effects are equally certain and far less dangerous. Finally the practical conclusion demands a new study of alcohol in the sick room, and a new examination of the facts and theories which have supported its use as a medicine.

## Academy of Medicine of Cleveland

The thirty-fourth regular meeting of the Academy was held at 8 p. m., Friday, January 19, 1906, in the Assembly Room, Hollenden Hotel. Program: Historical—Chloroform and its Discoverer, Dr A. G. Hart; Heart-Disease as a Complication in Pregnancy and Labor, Dr F. S. Clark; Pathology of Tuberculosis of the Kidney, Dr H. J. Whitacre, Cincinnati, Ohio; Diagnosis and Treatment of Tuberculosis of the Kidney, Dr W. E. Lower. Discussion will be led by Dr Whitacre.

C. A. HAMANN, M. D.

President.

CLYDE E. FORD, M. D.

Secretary.

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### EXPERIMENTAL SECTION.

The twenty-third regular meeting of the Section of Experimental Medicine was held at 8 p. m., Friday, January 12th, 1906, at the Cleveland Medical Library. Program—The Relation of the Section of Experimental Medicine to the Medical Profession of Cleveland, Dr Wm. T. Howard, Jr.; The Medicines of the Chinese, Dr H. N. Kinnear, Oberlin, Ohio.

J. N. SIPHER, M. D.

Chairman.

TORALD SOLLMAN, M. D.

Secretary.

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### CLINICAL AND PATHOLOGICAL SECTION

The thirtieth regular meeting of this Section was held at 8 p. m., Friday, January 5th, 1906, at the Cleveland Medical Library. Program—The Direct Reading of the Acidities of Gastric Contents, Dr G. W. Moorehouse; Management of Occipito—Posterior Positions, Dr A. H. Bill; Presentation of Pathological Specimens, Dr D. Marine; A Case of Puerperal Tetanus, Dr J. J. Thomas. Members are requested to present interesting cases and specimens.

M. J. LICHTY, M. D.

President.

JULIUS H. MCHENRY, M. D.

Secretary.

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## Alumni Association of St. Alexis Hospital

The Annual election of officers of St. Alexis Hospital Alumni Association occurred at the banquet given by this Society, at the Hollenden Hotel, January 4th. The officers elected are as follows: president, Joseph V. Kofron; vice president, Thomas J. Calkins; secretary, Myron Metzbaum; treasurer, Jacob E. Tuckerman.

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## Annual Meeting of the Cleveland Medical Library Association

The annual meeting of the Cleveland Medical Library Association was held at the Library on January 15th. The following officers were elected for the ensuing year: President, Dr Dudley P. Allen; Vice-President, Dr D. H. Beckwith; Secretary, Dr H. L. Sanford; Treasurer, Dr H. G. Sherman; Librarian, Dr C. A. Hamann.

The report of the Treasurer showed that enough money had been secured from private and professional sources to enable an early carrying

out of the plans for the new building, and that money pledged in the profession had warranted alterations in the old building to provide reading and gathering rooms for the use of members.

The President explained in detail from plans the features of the new building, which is to be erected at the rear of the present building. The first floor will be taken up by a modern stackroom, which will have a capacity of 50,000 volumes and space for the librarian. The upper floor will be a large auditorium which will seat 300, and which will be used for meetings of the Academy of Medicine, and such other medical and scientific societies as may seem appropriate.

Refreshments were served after the meeting.

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### Books Received

- A Manual of Materia Medica and Pharmacology, by David M. R. Culbreth, Ph. G., M. D. Lea Brothers & Co., 1906.
- Urinary Analysis and Diagnosis, by Louis Heitzmann. Wm. Wood & Co.
- Pharmacology and Therapeutics or Action of Drugs in Health and Disease, by Arthur R. Cushny. Lea Bros. & Co., 1906.
- The Signs of Internal Disease, by Pearce Kintzing. Cleveland Press, Chicago.
- Anatomy, Descriptive and Surgical, by Henry Gray, Lea Bros. & Co.
- Thornton's Pocket Medical Formulary. Lea Bros. & Co.
- Fifth Annual Report of the New York State Hospital for the Care of Crippled, for the year ending September 30, 1905, Hospital located at West Haverstraw, N. Y., West Shore Railroad, 1905.
- Diseases of Infancy and Childhood, by Henry Koplik. Lea Bros. & Co.
- Transaction of the Lackawanna County, Pa. Medical Society. Volume 1, 1905.

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### Book Reviews

A Handbook of the History of Medicine. Edited by Dr Theo. Puschmann, formerly Professor in the University of Vienna. 1902-5. Gustave Fischer.

(Handbuch der Geschichte der Medizin, begründet von Dr. Med. Th. Puschmann, weiland Professor an der Universität in Wien. Jena, 1902-5. Gustav Fischer.)

In 1897 the late Dr Puschmann, Professor of the History of Medicine in the University of Vienna, conceived the idea of publishing a history of medicine on somewhat unique lines. The medicine of classical antiquity and the Middle Ages was to be treated systematically, as usual in books of this kind; but in modern medicine the work was to be entrusted to specialists in the various departments of medicine, each of whom was expected to furnish the history of his own department.

Dr Puschmann reserved to himself the medicine of classical antiquity, but his unexpected death in 1899 left the enterprise without a responsible head, and the "Introduction" (about seven pages) is the only reminder in the work itself of its lamented author.

The execution of Puschmann's idea was ultimately entrusted to Dr Max Neuburger of Vienna, who associated with himself Dr Julius Pagel, Professor of the History of Medicine in the University of Berlin, and a number of other specialists, and the undertaking has now been completed essentially upon the lines laid down by its author.



The result is a work of three octavo volumes, perhaps 2,500 pages, as unique as the conception of its author. It is not technically a "Handbook," except that it is certainly a convenient work to "have at hand" for reference; nor yet is it technically a history of medicine, since chronological and logical continuity, together with causative, social, racial and philosophical relations, are studied only incidentally. But it is a collection of very valuable monographs upon a large number of the historical phases of medicine, written concisely but clearly, and accompanied with a vast number of useful bibliographical references and notes, very grateful to those who desire to consult the details for themselves. In these respects the work resembles rather an encyclopædia than a professed history of medicine.

The first volume of the work is devoted entirely to prehistoric medicine and the medicine of classical antiquity and the Middle Ages. The last two volumes contain the history of the various departments of medical art, supplied by experts in each department.

A work thus prepared contains, of course, many inequalities of style and treatment. The total result, however, is a valuable compendium of medico-historical information of the latest and most authentic type, which can be heartily commended to those interested in the subject.

The "Handbook" will be found on the shelves of the Medical Library.

H. E. HANDERSON.

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Park's Pathogenic Micro-Organisms. A manual of Pathogenic Micro-Organisms, including Bacteria and Protozoa. For Students and Practitioners of Medicine and Surgery and Health Officers. By William Hallock Park, M. D., Professor of Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, and Director of the Research Laboratory of the Department of Health, New York. New (2d) edition, enlarged and thoroughly revised. In one octavo volume of 556 pages, with 165 engravings and 4 full page plates in black and colors. Cloth, \$3.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

This book is a welcome addition to our works on Bacteriology on account of its compendiousness and convenience of arrangement. The first 16 chapters are entirely concerned with general Bacteriology, and are noteworthy in that they give the reasons for many of the chemical staining reactions. A few omissions are noted among which is the convenient method of Wright's for anaerobic cultures. The different organisms are taken up under the heads of the diseases which they cause, rather than their classification, giving us bacteriology from the clinical standpoint, rather than clinical medicine from the bacteriological standpoint. The descriptions are full, succinct, and completely up-to-date, although insufficient credit is given to certain workers. A few errors have crept in, such as the statement that Friedlander's bacillus ferments lactose. Descriptions of the *Micrococcus Melitensis* are not found in the chapter so labeled, but in a previous chapter.

At the end of the book is a chapter on "Protozoa" under which the author includes the spirillum of relapsing fever and Schaudinn's organism. The variola and vaccinia organisms are described under this head as is also rabies, but are considered doubtful as causative factors.

In general, the book is very satisfactory, and in formation under any sub-divisions is readily found.

Stimson on Fractures and Dislocations. A Treatise on Fractures and Dislocations. For Students and Practitioners. By Lewis A. Stimson, B. A., M. D., LL. D., Professor of Surgery in Cornell University Medical College, New York; Surgeon to the New York and Hudson Street Hospitals, etc. New (4th) edition, thoroughly revised. Octavo, 844 pages, 331 engravings and 46 full-page plates. Cloth, \$5.00, net; leather, \$6.00, net; half morocco, \$6.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This work of Stimson's, which has now reached its fourth edition, is already well known to the medical profession as an exhaustive and valuable book of reference on the subject of fractures and dislocations. The chief changes since the last edition have been made in particular details concerning treatment of the fractures in and near joints, the more extensive use of the X-ray as an aid to diagnosis and a help in correctly setting fractures, and in the greater frequency of resort to open operation. Considerable new matter has been added in the subject of fractures and dislocations of the carpal bones. We are surprised to find no mention in this section of the excellent work of Codman on this subject. Considerable new material has also appeared concerning operative reduction of old dislocations. A number of new illustrations have been added or substituted and 20 X-ray photographs have been added in the plates.

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Text-Book of Anatomy, edited by D. J. Cunningham, F. R. S., M. D. (Edin. et Dubl.), D. SC., LL. D. (Glasg. et St. And.), D. C. L. (Oxon) Professor of Anatomy, University of Edinburgh Second and thoroughly revised edition. Illustrated with 936 wood engravings from original drawings, many printed in colors. New York. Wm. Wood & Co. 1905.

The fact that the second edition of this work is called for so soon after the original publication, is sufficient indication of its popularity with the profession. The different parts of the book are contributed by former pupils of Sir William Turner, who have acted for longer or shorter periods, as his assistants. The chief changes and additions have been made in the chapters on embryology, joints, muscles, brain and spinal cord, genito urinary organs, lymphatics and applied anatomy. In the section upon the muscular system, a series of illustrations has been added in which the areas of muscular attachments are delineated upon the bones. Many new illustrations in color have been added, which increase the general usefulness and artistic effect of the volume. The new work upon the lymphatic system is especially valuable from the practical standpoint of the surgeon in its relation to metastases from malignant growths.

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Operative Surgery. For Students and Practitioners. By John J. McGrath, M. D., Professor of Surgical Anatomy and Operative Surgery at the New York Post-Graduate Medical School, Surgeon to the Harlem, Post-Graduate, and Columbus Hospitals, New York. Second Edition, Thoroughly Revised. With 265 illustrations, including many Full-Page Plates in Colors and Half-tone. 628 Royal Octavo Pages, Extra Cloth, \$4.50, net; Half-Morocco, \$5.50, net. Sold only by subscription. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

This volume combines in a practical manner, the subjects of surgical anatomy and operative surgery. Satisfactory diagrammatic drawings have been used for the purpose of illustrations and are a great aid in under-

standing the text. An effort has been made in this second edition to bring the subject matter up-to-date. Advances in surgery come so rapidly that already some of the most important technic of stomach and intestinal surgery has advanced beyond the procedures treated in this volume. The work as a whole is a valuable one and is as practical and concise as any work upon this subject with which we are familiar.

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A System of Physiologic Therapeutics, a practical exposition of the methods, other than drug-giving, useful for the prevention of disease and in the treatment of the sick. Edited by Solomon Solis Cohen, A. M., M. D., Senior Assistant Professor of Clinical Medicine in Jefferson Medical College; Physician to the Jefferson Medical College Hospital, and to the Philadelphia, Jewish and Rush Hospitals, etc. Vol. VIII. Rest, Mental Therapeutics, Suggestion. By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College of Philadelphia; Neurologist to the Philadelphia Hospital; Consulting Physician to the Asylum for the Chronic Insane at Wernersville; Consulting Neurologist to the St. Agnes Hospital; Consulting Neurologist to the Jewish Hospital, Etc. Philadelphia. P. Blakiston's Son & Co., 1012 Walnut Street, 1904.

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A System of Physiologic Therapeutics, a practical exposition of the methods, other than drug-giving, useful for the prevention of disease and in the treatment of the sick. Edited by Solomon Solis Cohen, A. M., M. D., Senior Assistant Professor of Clinical Medicine in Jefferson Medical College; Physician to the Jefferson Medical College Hospital, and to the Philadelphia, Jewish and Rush Hospitals, etc. Vol. VII. Mechano-therapy and Physical Education, including Massage and Exercise. By John K. Mitchell, M. D., Fellow of the College of Physicians of Philadelphia; Physician to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Assistant Neurologist to the Presbyterian Hospital of Philadelphia, etc., and Physical Education by Muscular Exercise, by Luther Halsey Gulick, M. D., Director of Physical Training in the Public Schools of Greater New York; President of American Physical Education Association; Chairman of Physical Training Committee, etc. Special chapters on Orthopedic Apparatus, by James K. Young, M. D., Professor of Orthopedic Surgery in the Philadelphia Polyclinic; Assistant Orthopedic Surgeon to the Hospital of the University of Pennsylvania, etc.; on Corrective Manipulations in Orthopedic Surgery (including the Lorenz Method), by H. Augustus Wilson, M. D., Clinical Professor of Orthopedic Surgery in Jefferson Medical College; Orthopedic Surgeon to the Philadelphia Hospital, etc.; and on Physical Methods in Ophthalmic Therapeutics, by Walter L. Pyle, M. D., Assistant Surgeon to Wills Eye Hospital, Philadelphia. 229 illustrations. Philadelphia. P. Blakiston's Son & Co., 1012 Walnut Street. 1904.

The scope and importance of this series of volumes on the methods other than drug-giving, useful for the prevention of disease and in the treatment of the sick is so well and favorably known that the present volume requires no extended notice at this time. The principles, methods and therapeutics of massage and the use of exercises as remedial measures are fully treated by Dr John K. Mitchell. While physicians generally cannot be expected to be experts in the manipulations used by "rubbers," the indications for such treatment should be known and the physician should be able to prescribe as definitely in this field of therapeutics as in



any other. That a neglect of such methods as these are worked injury both to the physician and to his patient is a matter of general agreement.

The subject of physical education by muscular exercise is treated by Dr Luther H. Gulick, who has had extensive experience in these methods and their application.

In addition to the above we find more briefly treated in this volume the subjects of orthopedic apparatus by Dr James K. Young; corrective manipulations in orthopedic surgery, including the Lorenz method, by Dr H. Augustus Wilson; and physical methods in ophthalmic therapeutics by Dr Walter L. Pyle.

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"Atonia Gastrica" (Abdominal Relaxation), by Achilles Rose, M. D., and Robert Coleman Kemp, M. D., 12 mo, Cloth. 215 pages. Illustrated. Price, \$1.00, net. Funk & Wagnalls Company. New York and London. 1905.

According to the author the object of this book of 203 pages is to present facts which demonstrate the relations of abdominal relaxation to a number of pathological conditions, and to show its importance in diseases of the stomach, of the abdominal organs in general, the organs of respiration, of circulation, and the nervous system.

The authors place great dependence upon the splashing sound which may in certain cases be elicited when either the whole body or the stomach alone is shaken. In many people of ordinary good health the phenomenon may be elicited shortly after they have taken liquids or fluid food but notwithstanding the general good condition of the subject it is held that the stomach from which this splashing sound may be obtained is not in normal condition but is in a state of relaxation. Three different degrees of relaxation may be diagnosticated by means of the splashing sound: If it can be elicited only during the normal period of digestion, it means simple atony; if after the legitimate time of digestion has expired it means motor insufficiency; and the splashing sound produced in the morning after the night's fast, before liquid or food has been introduced, may mean stagnation, retention of the chyme in the stomach for a prolonged period.

Even those who do not regard the splashing sound, when elicited in the normal stomach area, as of the importance our authors assign to it, generally admit that when it is found at an abnormally low level it indicates a stomach which is either prolapsed or dilated.

Further in determining the position of the stomach they find in inspection a method of great value. It may, indeed, be useful in individuals with thin abdominal walls. To facilitate this inspection the patient is placed with the head toward the window, the shades being arranged so that the light enters on a plane only slightly above that of the patient. The examiner, standing toward the foot of the table, or at the side of the patient with the eyes at about the level of the abdomen, may detect delicate transverse waves over the surface of the abdomen passing upward and downward with respiration. In this way the curvatures of the stomach may be indicated.

In the treatment of abdominal relaxation the use of strapping by means of rubber adhesive plaster is lauded, and the full description of the bandage, designed by the author to meet the conditions, is given.

## Medical News

Leo Reich, of Akron, has located in Cleveland.

Chas. C. Ward, of Wilmington, is on the sick list.

D. F. Burton has removed to the Pythian Temple.

Grant Whittlesey is now located in the Lennox Bldg.

G. Hess and wife, of Ashland, have gone on an extended trip through the south.

E. W. Baker, of Fremont, is on a two weeks hunting trip at Hudsonville, Mississippi.

Robert Rice, of Fremont, who has been quite ill for some time at his home, is improving slowly.

E. W. Brown, for years with The Whittlesey Optical Co., has opened an office in the Schofield Bldg.

Paul D. Hale, of Dayton, who has been quite ill for some time at the home of his father, is improving slowly.

Dr Maynard, of Elyria, leaves February 6, for London, England, where he will take a post-graduate course in that city.

Minnie Meek, of Zanesville, left a short time ago for an extended western trip. She expects to return in the early spring.

Dr Fisher, of Lebanon, read a very interesting paper before the Green County Medical Association at Xenia at their last meeting.

Dr and Mrs. Sperry, of Oberlin, have left their home for an extended trip to the Pacific coast. The Doctor will lecture en route.

J. W. Lowe, of Chagrin Falls, has been honored with an election to the office of secretary for the Lake County Medical Society.

Dr de la Barre, of Port Clinton, who has been enjoying a much needed rest at his winter home in Florida, returned home February 1st.

Jerome Bland, of Bucyrus, who has been critically ill at Hot Springs, Arkansas, is much improved and hopes are entertained for his speedy recovery.

C. V. Schneider, formerly of Cleveland, formerly interne at Cleveland City Hospital and House Surgeon at Huron Street Hospital, has located at Fullerton.

George W. Ryall and wife, of Wooster, are contemplating leaving in the spring for several months in Europe. Dr Ryall expects to take an advanced course in surgery.

B. R. LeRoy, of Chagrin Falls, returned home from an eight months' sojourn in the canal zone of Panama. He expects to return to the tropics with his family next summer.

S. H. Large, of this city, who has been studying abroad for the past eight months, will return about March 1st. Dr Large's practice will be limited to ear, nose and throat.

The Lorain County Medical Society met January 11 with a large attendance. Dr Hart, of Elyria, read a paper on "Fractures of the Femur" and Dr Pitsele one on "Lupus Vulgaris."

The Crawford County Medical Society held a meeting January 30 at Crestline, at which time Dr Rayl read a paper on "The Prevention of

Pneumonia," and Dr Fitzsimmons gave a report of a case of gun shot wound. There was also a report and discussion of the Galion organization.

The next Session of the Ohio State Medical Society will be held in Canton, May 8, 9, 10 and 11. Sessions and exhibition halls will take place at the Auditorium. Banquet, night of May 10 at the Portland.

The Hamilton Academy of Medicine, met in Hamilton on January 18. The general subject was, Tonsillitis, Diphtheria and Acute and Chronic Laryngitis. Important papers were read and very ably discussed

J. H. Miller, of Delaware, read a paper on "Diphtheria," at the February meeting of the Delaware County Medical Society. This meeting was unusually well attended and interest in Society affairs is on the increase.

The Wayne County Medical Society met in Orrville, January 16. The meeting was presided over by Dr Ryall, of Wooster. Dr Blankenhorn, of Orrville, read a paper on "Etiology and Pathology of Typhoid Fever," and Dr Hay one on "Ex-ophthalmic Goitre," and Dr Paul on "Pneumonia."

The Annual meeting of the Trumbull County Medical Society was held on January 24, at the office of F. K. Smith, Masonic Temple, Warren. The business session at which the election of officers for the coming year was held opened at 2:30. Later the Society and guests were addressed by Martin Friedrich, of this city.

The following are the officers of the Stark County Medical Society: president, A. B. Walker, Canton; corresponding secretary, Frank W. Gavin, Canton; treasurer, George F. Ziminger, Canton; executive committee, Harry P. Pomerine and J. F. Marchand, Canton, Leon B. Santee, Marlboro, and Wm. C. Steele, New Berlin, Neal W. Culbertson and Dan'l W. Gans, Massillon.

The Fairfield County Medical Society held its regular meeting on January 16. The following papers were read. "Arterio Sclerosis," G. A. Beery; "Angina Pectoris," H. M. Hazelton. These papers were discussed by Drs Miller, Rauch, Mason, Harman, Trout, Plum, Samson, Roller and Alford. Much interest is being manifested in the society meetings and they are being well attended.

The Eighth Councilor District Medical Society of Ohio was held at Marietta, January 11. The program was as follows: "A Little Talk About Gallstones," J. G. Albers; "Gallstones," C. L. Bonnfild; "Typhoid Fever," G. W. Hixson; "Pneumonia," C. U. Hanna; "The Medical Expert," N. T. McTeague; "The Care and Commitment of the Insane," Chas. S. McDougal; "The Treatment of Scalds and Burns," B. F. Barnes.

Members of the Medical Association of Clark, Fayette, Clinton and Warren Counties, were the guests of the Greene County Association, on January 25, when C. A. L. Reed, of Cincinnati, addressed them on "Panama." After the meeting an elegant banquet was enjoyed at the Grand Hotel. W. A. Galloway, of Xenia, was toastmaster and toasts were responded to as follows: "The Physician as a Specialist," C. Minor, Springfield; "The Physician's Hobby," R. M. Hughey, Washington C. H.; "The Physician as a Philanthropist," Hershel Fisher, Lebanon; "The General Practitioner," R. M. Trimble, New Vienna; "The Physician in Politics," B. R. McClellan, Xenia.



# The Cleveland Medical Journal

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## Status Lymphaticus, with Death under Ether Anesthesia

A. F. FURRER, CLEVELAND.

Sudden, unexpected death under an anesthetic without adequate cause in a patient in good condition before the administration of the anesthetic and continuing so throughout the operation until a moment before the fatal termination, is the untoward result that the surgeon may be called upon to face at any moment.

The following case was admitted during my senior service as House-Physician to the Boston Lying-In Hospital, service of Dr Charles M. Green, to whom I am indebted for permission to report this case. At 11:20 p, m., February 24, 1905, Mamie M. was admitted to the Hospital and the following history obtained. Married, 28 years of age, second pregnancy, three weeks ago the patient had a sudden hemorrhage from the vulva.

A second hemorrhage, occurring on the evening of patient's admission to the Hospital, a physician was called, who put in a vaginal pack and advised the patient's immediate removal to the Hospital. Diagnosis,—placenta previa. Physical examination showed a young mulatto woman of about 30 years of age, well developed and nourished. Tongue, pupils and chest negative, abdomen enlarged to the size of a pregnancy at term. The fetal heart was strong and regular, its rate 136 and heard in the left lower quadrant. Position O. L. A. No edema.

The vaginal packing was removed and found to be about half soaked with fresh blood. A few small clots were found in the vagina. The cervix admitted the tip of the middle finger which came in contact with the edge of the placenta. Head was not engaged. The vagina was repacked and a nurse was directed to watch for signs of hemorrhage at the vulva and to report the same or the increased rate of either maternal or fetal pulses.

On February 25, about 10 hours after admission, on remov-

ing the vaginal packing the os was found to admit two fingers. Bleeding was slight. Under ether (primary) the vagina was tightly packed. February 26, about 24 hours later, after having had slight uterine contractions all day, the os was found to admit two fingers readily. The patient complained of little or no pain. The fetal heartbeat was 140, strong and regular. About seven hours later, the patient had another slight hemorrhage. The maternal and fetal hearts were unaffected. This time the vagina was left empty.

On February 27, ether was started at 10:02 a. m., and eight minutes later, after catheterization of the bladder, manual dilatation of the os was begun, which was found to be partially taken up and to admit the tips of three fingers. The position of O. L. A. was confirmed. The dilatation was completed and internal podalic version performed in the usual way by Dr Green. The hemorrhage was slight and was noticed to be of venous color.

Just after the turning of the child and before the arms could be freed, respiratory trouble was noticed and the breathing speedily became shallow. The ether was immediately discontinued and artificial respiration started. The pulse taken at the beginning was 120 of good quality and had shown no cause for anxiety until respiratory difficulty was noticed, when it speedily became irregular in volume and rate. For about one minute after artificial respiration was started there appeared to be a slight improvement. The respirations again became weak and after a few seconds stopped altogether. The extraction of a strong and healthy baby weighing nearly nine pounds was completed about a minute before respiration ceased. The child, although under the influence of the ether, breathed immediately. Artificial respiration was continued for 15 to 20 minutes on the mother and heroic medical stimulation given hypodermically without avail, the patient dying about 10:20 a. m., 18 minutes after the ether was started and about 10 minutes from the time of the beginning of manual dilatation of the os. There was no evidence of rupture of the uterus.

#### PATHOLOGICAL REPORT.

BY J. OSCAR RICHARDSON,

Assistant Pathological Massachusetts General Hospital.

In February, 1905, at the request of Dr Green, I made a post mortem examination of the body of a woman who had died suddenly and unexpectedly during delivery which, other than for

the totally unexpected death of the patient, presented nothing at all unusual.

The body at the examination, which was made shortly after death, (4¼ hours), was that of a mulatto woman of 28 years of age, very well developed and nourished. There was a well marked pigmentation of the nipple areolae and on section the tissue of the breasts yielded a considerable amount of thin grayish cloudy fluid.

Between the umbilicus and the pubes a large firm resistant mass was felt through the abdominal wall and which section showed to be the uterus.

The peritoneal cavity contained a very slight amount of pale clear fluid and the peritoneum everywhere was intact, smooth and shining.

On section of the uterus its cavity was found empty and the mucosa generally clean with here and there a few shreds of grayish red fibrinous material. In the region of the os the mucosa presented two irregular superficial tears but neither here nor elsewhere in the uterus was any condition found that was at all remarkable. The vaginal walls were intact and smooth.

The uterus laid open measured 21 cm. in length with a width of 16 cm. at the fundus. The circumference of the os was 18 cm. and the wall of the fundus 2 cm. thick. Section of the fallopian tubes and ovaries showed a normal appearance and the left ovary contained a corpus luteum. The bladder and uterus, on section, were of normal appearance. The kidneys together weighed 382 grams and were easily stripped of their capsules, leaving a smooth surface. On section, the tissue presented normal markings with a cortex measuring 5 mm. The liver which weighed 1520 grams presented on section a fairly firm rather homogeneous tissue of a pale brownish color. There were no stones in the gall-bladder which was of normal appearance and the bile ducts were free. The pancreas, on section, was not remarkable and the duct of Wirsung was free. Section of the adrenals showed a normal appearance. The spleen was slightly enlarged and weighed 249 grams. On section, its tissue was firm, rather dark red in color with well marked follicles which throughout the section surfaces as small rather firm grayish masses varying from 1 mm. to 2 mm. in greatest dimension. On section, the esophagus, stomach and intestines showed normal mucosæ and their walls were intact. About the head of the pancreas and along the aorta the retroperitoneal lymphatic glands



were enlarged and the mesenteric lymphatic glands generally showed slight enlargement. Some of the glands about the head of the pancreas measured 1.5 cm. in greatest dimension. On section, the tissue of these glands was fairly firm, homogeneous and grayish to gray red in color.

The pleural cavities were free from fluid and there were no pleural adhesions. On section, the trachea and bronchi were found free and there were no areas of consolidation in the lungs. Other than for a slight reddening of the mucosa of the bronchi and a moderate amount of bloody fluid in the lung tissue the organs were in nowise remarkable. No glands could be felt in the axillae or clavicular regions but dissection of these parts was prohibited. The bronchial lymphatic glands were not remarkable.

The thyroid gland was slightly enlarged and presented two well formed lateral lobes and a small middle lobe. On section, the tissue showed nothing unusual. Beginning at the lower border of the thyroid gland and extending downward in front of the trachea and between the lungs and reaching to the upper anterior portion of the wall of the right ventricle and resting over a portion of the right auricle, the pulmonary artery and the aorta, there was a pinkish mass of rather soft elastic tissue slightly forked at each extremity. The mass measured over all 10 cm. in length by 3 cm. in width by 1 cm. in thickness and the forked portions were 2 to 3 cm. long, tapered slightly and were about 1 cm. in average width. It consisted apparently of two lobes and was regarded as being an enlarged thymus gland. The tissue of the gland, on section, was quite meaty in character.

On section of the pericardium and the heart the former was found to be normal in appearance and the heart which weighed 302 grams showed myocardium, valves and cavities in nowise remarkable and the coronary arteries were free and smooth. The aorta and its great branches were rather small for the individual and their pale smooth walls were rather thin. The blood in the great vessels was fluid and there was no evidence of embolism or thrombosis. Cultures on blood serum were made from the heart, the liver and spleen, but these gave no evidence of the presence of any infection.

Microscopical examination of sections of the hardened and strained tissues of the various organs showed nothing remarkable, except for the hyperplastic condition of the tissues of those organs, attention to which was called in the description of the gross appearances.

It is therefore evident in this case from the anatomical data given that the condition was one of recent *status post partum* and that the only strictly pathological changes found were those of enlarged thymus, hyperplasia of the lymphatic glands and the follicles of the spleen with slight hypertrophy of the thyroid gland and slight hypoplasia of the aorta.

To this anatomical complex the name of status lymphaticus has been given and to the now large group of these cases this one of Dr Green's is a valuable addition.

Osler states that lymphatism is much more common in children than in adults and upon looking up the literature, I found that the great majority of cases reported were in children and infants. However, cases occurring in adults as well have been reported from time to time. Paltauf and others of the Vienna School, who have written extensively on this subject, believe that hyperplasia of the thymus is physiologically as well as anatomically an element of a general hyperplasia and is a result of a derangement of nutrition or metabolism, which also causes a degeneration of the cardiac centers.

Ewing, in the *New York Medical Journal*, July 10, 1897, gives a very full and interesting account of the status lymphaticus. The pathological findings are given in detail. He states that the anatomical features which at present are believed to characterize the subject of the lymphatic constitution include,—  
(1) Hypoplasia of the aorta and the aortic system of vessels.  
(2) Partial or general hyperplasia of the lymphatic organs, the spleen, thymus, lymph nodes and the lymphoid or red marrow.

There may also be evidence of rachitis. Blake, in a series of cases reports two occurring in adults, one a woman of 32 years of age undergoing a supra vaginal hysterectomy, who collapsed and died suddenly after 40 minutes of etherization. The thymus gland in this case measured  $7\frac{1}{2} \times 5 \times 2\frac{1}{2}$  cm. and weighed 46 grams.

Another instance was that of a man 45 years of age, well nourished and apparently healthy, who died suddenly during the early part of the administrations of the anesthetic, before the operation had begun. The thymus measured  $6 \times 5 \times 2\frac{1}{2}$  cm.

By far the greater number of deaths reported (the autopsy revealing the condition of status lymphaticus) have occurred while under chloroform narcosis, which is probably due to the fact that foreign surgeons use chloroform almost exclusively and also because many of the fatalities occur in infants and children.

As the list of these cases grows, however, and as the condition becomes recognized by American surgeons, we find death occurring with equal suddenness under ether anesthesia. Moreover, sudden death in individuals having the *constitutio lymphatica*, is recorded as a result of very slight shocks received when not under the influence of any anesthetic, as from the preventive inoculation of diphtheria antitoxin; and in sudden deaths occurring in individuals who have fallen into the water, and who, though immediately taken out, were found dead. (Osler.)

It has also been thought that sudden death in cases convalescing from acute infectious diseases may be due to this condition.

#### DIAGNOSIS

The diagnosis of the condition of status lymphaticus is difficult and is seldom, if ever, made except in children and then only when special attention is called to the patient by attacks of dyspnea or laryngismus stridulus. In adults attacks of syncope without adequate cause should arouse suspicion.

The appearance of the patients is said to be characteristic, they are generally slightly pale but plump and well nourished. A partial or general enlargement of the lymph nodes may be demonstrated. In Ewing's case mesenteric nodes could have been palpated. The spleen may be slightly enlarged. On percussion an area of dullness may be made out to the left of the sternum between the second and fourth ribs. Hypoplasia of the aorta and aortic system may be suspected from very much lessened or absent pulsations in the neck and also from stunted development of the genitalia. Examination of the blood is negative.

#### TREATMENT OF COLLAPSE UNDER ETHER ANESTHESIA IN STATUS LYMPHATICUS.

In signs of paralysis of the center of respiration occurring in normal individuals under ether, the ether is discontinued and artificial respiration instituted. These means alone are usually successful in resuscitating the patient, the hypodermic injection of respiratory and cardiac stimulants are of secondary importance.

In collapse, complicated by the lymphatic constitution, artificial respiration is little, if of any use by itself and the heart stops so quickly that drugs would not have time to reach the cardiac and respiratory centers, even if given hypodermically *after* the collapse is first noticed. It would seem, therefore, that the rational indication would be to *anticipate* shock by giving



digitalis before the operation and morphin hypodermically just before the anesthetic is started. In cases in which a considerable or even a moderate amount of hemorrhage is expected, a pint of normal saline solution may be given under the breast while the patient is being anesthetized. Finally, an arm should be prepared and fresh solution of suprarenal extract should be ready for instant intravenous injection the moment that cardiac or respiratory embarrassment is noticed. The ether will be discontinued of course, at the same time and if necessary artificial respiration may be instituted.

Cushny says "the powerful action of suprarenal extract on the circulation would justify its injection into a vein in cases of heart failure such as occurs from an over dose of chloral or chloroform and Gottlieb has shown that in animals poisoned with chloral or chloroform until the pulse has almost completely ceased, the circulation may be restored immediately by this means."

Crile's experiments in the resuscitation of animals in shock, even after the heart had stopped beating, showed that the intravenous injection of adrenalin in normal saline solution 1-50,000 was followed in 20 seconds by the renewal of the heart beat and a rapid rise in blood-pressure.

Should the patient survive the operation, vigilance should not be relaxed for a moment but we must be ready to combat post operative shock in the usual manner by stimulant enemata, heat, postural treatment, etc.

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## Heart Disease as a Complication of Pregnancy and Labor

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Heart disease, in an otherwise healthy individual, is always considered a serious affection. Whether that individual suffers much, little, or not at all from such affection depends on its nature and his or her environments. In using the words, "heart disease," I wish them to be understood as meaning a valvular disease, for rarely will myocarditis be seen, though it may occur

in puerperal infection or possibly in some cases of toxemia of pregnancy. Acute endocarditis may occur during pregnancy as a result of rheumatism or of some acute infectious disease, but this also is rare and, without underestimating the seriousness of such complications, they will not be considered in this paper.

If pregnancy, though a physiological condition, causes an increased strain on healthy organs, the occurrence of serious complications when those organs are diseased may be expected.

In the ordinary treatment of disease we seek to remove the conditions that are causing or aggravating it. When however, a patient, during pregnancy, shows signs of beginning heart failure we cannot, except in very rare cases, remove the cause but must seek to stimulate the heart so that it can endure the increasing strain. How this can be best accomplished as well as how to safely carry our patient through the coming labor and puerperium is, I believe, a subject of sufficient importance to merit a short consideration of it and indeed is of greater importance than the scant attention it receives in most text-books would seem to indicate, though our medical literature does contain from time to time, valuable articles.

The exact influence of pregnancy on a normal heart seems to be still in doubt. It was a French investigator who first claimed that there was hypertrophy, but the Germans denied this. Various investigations have since been made with varying results. Edgar refers to the work of Stengel and Stanton who claim, as a result of tracings made, that the increased lateral boundary of the heart is not due to hypertrophy but to the pushing of the heart to one side by the enlarged uterus.

Williams refers to the investigations of Drysdale in 76 cases of pregnant women in whom he found that the heart weighed 8.8% more than the average weight in non-pregnant women, which indicates hypertrophy. In a small percent of cases a murmur has been found during pregnancy and not at other times. What the condition of the heart muscle in such cases is, cannot be said, but that there has been some dilation of the heart seems evident. It is not unreasonable to assume that the extra strain of pregnancy might cause hypertrophy and Drysdale's report could be readily accepted as indicating the probable condition in all cases. Williams, however, says that further investigations are necessary to definitely settle the question.

On the other hand there is no difference of opinion as to the influence of pregnancy on a diseased heart though authorities do disagree as to its seriousness.

Heart disease is observed in from 2 to 2.5% of cases of pregnancy or about twice as frequently as eclampsia or placenta previa. It is usually seen in the form of valvular lesions which have existed for some time previous to the pregnancy, and as said above, mycocarditis and acute endocarditis are rarely seen.

Of the valvular lesions mitral insufficiency is seen most frequently, next in frequency being combined mitral lesions, combined aortic and mitral stenosis and aortic insufficiency. Mitral stenosis is the most serious and mitral insufficiency is the least. The combined lesions are about as serious as mitral stenosis.

The exact mortality rate is hard to estimate for there has been a marked difference in the figures of different observers depending probably on the nature of cases each has had and perhaps on the manner of treatment. Some give a mortality of 50% each for mitral stenosis and combined lesions, 23% for aortic lesions and 13% for mitral insufficiency. Williams refers to a report by Fellner and Demeline of 94 and 41 cases respectively in which the mortality was only 6.3% and 5%. In each individual case we can make the safest prognosis by considering whether there has or has not been a failure in compensation previous to or during the pregnancy, but we must not forget that occasionally there has been a sudden death without evidence of such failure having occurred.

The prognosis regarding the fetus is unfavorable as is seen from the fact that 20 to 25% of the pregnancies complicated with heart diseases end in abortion or premature labor. These results occur either because of the death of the fetus or because of uterine hemorrhage each being directly due to cardiac disease. In addition to this, many of the babies, if born alive, die during the early years of life. It is not easy to get accurate figures to prove this but the following quoted by Allyn in the *University Medical Magazine*, for 1905, are very suggestive: "In 41 women with heart disease who bore children there were 21 abortions and miscarriages. Forty of these women brought up only 14 children beyond five years of age. In 19 other women under similar circumstances there were 10 abortions and miscarriages and 26 children died between birth and the time of the families coming under observation." It is not difficult to understand why many of the babies whose mothers have heart disease die early and when we see those that have lived and are well developed we might almost style them as the survival of the fittest.

In the management of pregnancy and labor when compli-



cated with heart disease we must seek, first, to so treat and instruct our patients as to avoid the numerous dangers which are incident to such complications and, second, attempt to safely carry them through such crises as our earlier treatment has failed to prevent.

In many cases a diseased heart can meet the ordinary conditions of life with little disturbance of its functions. If, however, there is imposed upon it the added strain of pregnancy it seldom happens that some signs of failure are not seen. These are swelling of the extremities, an increasing tendency to dyspnea, faintness, distressing cough due to pulmonary edema and renal insufficiency. If the latter exists toxemia is very probably present also. If the onset of labor is reached in safety, new dangers confront us either during or immediately following it, as hemorrhage, syncope, cerebral and pulmonary embolism and acute pulmonary edema. That a patient may be the more safely guarded against these dangers she should receive a careful examination when she places herself under our care that we may know whether any evidence of heart disease exists. If it is found, sufficiently frequent examinations should be made to determine how well the heart is enduring the increasing strain and to detect the earliest signs of failing compensation.

One of the first and most important suggestions in the line of treatment to give our patient is regarding rest and exercise. While the latter is always valuable to a pregnant woman, if the burden on the heart is all it can carry, it is absolutely essential that the ordinary exercises and cares be given up and that the balance of the pregnancy be spent in the easiest way possible. Much of the time should be spent lying down, while reaching, lifting, going up and down stairs and all mental excitements and anxieties should be avoided.

The general directions given to every case regarding the action of the bowels and kidneys should be made doubly emphatic. Diet, because of the tendency to digestive disturbances, should be simple, only such foods being allowed as are easily digested. On account of the tendency to renal complications, meat should be forbidden or only given very sparingly in the form of fish and light meats.

The manner of dressing and bathing is important and should receive careful attention but the special directions for each patient must depend on the nature of the case and habits of the individual.

If as pregnancy proceeds there is no failure in compensation, little if any administration of drugs will be required. On the other hand, if there are symptoms of heart failure with or without pulmonary and renal complications treatment must be vigorous. Either digitalis or strophanthus should be given at once and such other treatment adopted as the conditions indicate. Jardine, of Edinburg, has the best presentation of this subject in his *Clinical Obstetrics* I have seen in any text-book. He believes there are very few cases in which some cardiac tonic will not be indicated at least during the latter part of pregnancy. He advocates strophanthus as being more truly a cardiac tonic than digitalis and his results, as illustrated by the cases he reports, certainly bear out his claims as to its value.

Under the treatment, as above outlined, most of the cases can be safely carried to the time of labor. If, however, in spite of such treatment, the patient's condition grows worse we must seriously consider the advisability of producing labor. I question the advisability of refusing to interfere under such conditions because of a possible loss of the child and, as a result, lose the mother. On the other hand do not think that I advocate the indiscriminate use of such measures and if we relieve a patient once, what will we do if she presents herself a second time?

The onset of labor is a time of real anxiety in these cases and it is well that the patient's family know the danger, though she herself should be kept ignorant of it if possible. If the patient has not required cardiac tonics during pregnancy, it is well to give a dose of digitalis or strophanthus early in labor. Strychnin can be used during pregnancy but I question the advisability of using it after labor has started because of its great stimulation of the uterine muscles. We must have contractions of the uterus and, such as occur during the first stage, are not so serious but they must not be allowed to become so severe as to cause the patient to bear down, for it is her voluntary efforts which are most dangerous. Should the first stage be unusually slow it may become necessary to adopt artificial means to aid the dilatation. As the second stage is approached the patient must be instructed to avoid straining and the stage should be allowed to continue only till the head can be grasped with the forceps without undue risk to the child, always, of course, supposing that the patient's condition will allow such delay. In this stage of the labor we are confronted with the question as to what is best regarding the use of anesthetics. Briefly stated it



is this, the danger to the patient of continued strain is far greater than that of using an anesthetic. With care it can be used with comparative safety toward the end of the first stage and in the second stage till forceps are applied. We may hesitate some as to which one to choose, but the general opinion seems to be that if there is a simple heart lesion without any of the resulting complications, ether had better be used. If, however, there are pulmonary or renal complications, chloroform should be chosen. In my own work I have always used chloroform in either case. Not only may there be sudden failure of the heart from the final straining of the patient if we allow her to go on without interfering, but, even if forceps are used, there may be, according to Jardine, actual paralysis of the heart, especially when the right heart is much dilated as in mitral stenosis. This, he explains, is due to the overfilling of the circulation with blood which has been cut out of the uterine circulation by its contraction after delivery of the child, thus overdisting the right heart. Such a condition would probably not occur when there was a profuse flow immediately following the birth of the child and placenta and suggests venesection as a proper remedy when it does not occur.

But directly opposed to this is the danger of postpartum hemorrhage which is such a frequent occurrence in heart disease. In the ordinary treatment of labor we give ergot following the expulsion of the placenta to produce contraction of the uterus as an aid in the prevention of hemorrhage. In labor complicated with heart disease this is contraindicated because, by its action in restricting the uterine circulation, it increases the strain on the general circulation and so on the already overworked heart. The treatment of the hemorrhage must be with other remedies which do not cause such violent contractions as ergot.

Another danger we may meet is syncope, especially where the aortic valves are involved. This may also occur following the sudden expansion and filling of the abdominal vessels at the time of expulsion of the child. For this condition some advocate the placing of a binder around the abdomen before delivery and gradually tightening it during the expulsion of the child.

Cerebral and pulmonary embolism and pulmonary edema are complications for which we must be constantly on our guard. For the two former, we can do little except as we aim to prevent conditions leading up to them. For the latter, the vigorous treatment required in all such conditions must be applied.



The question of nursing the child is important. In severe cases of all kinds it should never be allowed and in the milder cases it would be better not to allow it because the heart is influenced, and we need all the patient's strength to carry her through the puerperal state.

Unfortunately the termination of labor safely, does not end the danger, even in the apparently less severe cases and it may be only after a long convalescence that the patient recovers. These facts are well illustrated in the following cases.

Several years ago I was asked to see a patient who expected to be confined for the fourth time, in about a month. She had a mitral regurgitant murmur, albuminuria, dyspnea and cough. Two days later the dyspnea became very severe with all symptoms of pulmonary edema. Vigorous treatment relieved the dyspnea and in 24 hours labor began. The child was in a transverse presentation and the outlook was most unpromising, but the labor was safely passed and her symptoms became much improved. On the sixth day albumin, which had largely disappeared, returned and breathing became more labored. She was a woman who would not do as advised or heed the warnings given but insisted on helping herself. On the seventh day while trying to help the nurse wait on her she raised herself up and fell back dead. After carrying her safely through the danger just preceding and during her labor such a result had not been expected but it illustrates how careful must be our treatment during this period.

Another case of one who had two children, required the most careful watching and treatment during pregnancy because of a mitral murmur, albuminuria and pulmonary congestion. The child was delivered with forceps and the patient recovered but only after a period of nearly three months, the early part of which was filled with many misgivings. Today she occasionally has attacks of dyspnea due to cardiac weakness.

One case only have I had in which there was some valvular disease, it was mitral regurgitation, in which pregnancy and labor was passed through with little discomfort. (Six months later, however, the patient was taken sick with pneumonia dying in three days. From the very first the case seemed hopeless because of the condition of the heart, and one might well ask if her chances of recovery would not have been better, if the heart had not been called upon to endure the strain of her pregnancies. We cannot say that this case truly illustrates such a possibility

but it is a fact that many times the absence of injury to a heart as a result of pregnancy and labor is more apparent than real.) Other cases, which I cannot now refer to, required very careful watching and the termination of the labor with forceps at the end of the first stage.

Before concluding this paper I wish to refer to a question, which in its way is just as important as those we have been considering. What shall we say to those patients who ask our advice regarding the safety of pregnancy when the heart is involved, or what advice shall we volunteer to one in whom we find heart disease, the patient herself being ignorant of its existence? It is sometimes a serious question whether it is best to tell a patient she has heart disease. When, however, one has seen the beneficial effects to the heart, resulting from the precautions taken by a patient who knows what is detrimental to her heart, it seems to me it should not be a debatable question. Our aim as physicians is not only to save life but to prevent, as far as possible, such conditions as tend to endanger it. Granting that a patient with heart disease will safely pass through a pregnancy and labor as we know many do, it cannot be done without further crippling the heart, the evidence and results of which must be seen later in life. (We cannot figure in months and years how much difference the strain on the heart from pregnancy will make in the life of a patient, and yet we know that each succeeding crisis, no matter from what cause, through which a patient passes is more critical than the preceding because of an earlier tendency of the heart, in such cases, to begin to fail.) For this reason it should not be simply a question of whether a patient will survive a pregnancy and labor, but of whether she will be able in later life to meet the calls made on her if she is allowed to take such risks.

Advice against pregnancy will be easier to give when we remember, as already said, that from 20 to 25% of cases miscarry and that many children though born alive do not live beyond early childhood. Is it right that patients should be encouraged under such circumstances to risk the dangers of pregnancy, the strain of which is often severe even the first few weeks or months and especially if aggravated by nausea and vomiting? (The argument that patients will worry, either from disappointment because they cannot have children or from fear in case they should become pregnant, after being advised against it, ought not to be taken too seriously. As to the first she will soon adjust

herself to the new condition and in case of the latter we must reassure her as best we can and give her our best services during her time of danger.)

About 18 months ago the following case came under my observation. The patient was a young woman who had a mitral regurgitant murmur of some years standing, the existence of which she was ignorant. Her mode of life was such as to aggravate a weak heart. Her history for the year previous suggested that she had suffered some inconvenience from her heart. She was two months pregnant when I first saw her and unquestionably her heart was showing some effects from the added strain of pregnancy. This was no doubt aggravated by the nausea and vomiting she had had, but it was a part of pregnancy which is so hard to eliminate. She miscarried in the early part of the third month, no cause other than the heart being apparent. On account of the condition of her heart after a few hours of pain, it was necessary to complete the dilation of the os and deliver the ovum. The loss of blood was insignificant and there was no fever, yet she made a slow recovery because the heart was so long in regaining its normal condition. For the past year, in spite of the slow recovery, she has been much better than before because she no longer does those things which had been a strain. But she is anxious for children. I have advised against it. Two other physicians who have seen her since, told her she would not run any special risk. When her condition before and during the pregnancy and miscarriage is considered such advice is, it seems to me, unfortunate, for in case of another pregnancy there is every reason to expect that there would be a more serious illness than this time and, as a result, that the heart would be less able to endure such unusual strains as might be thrown on it in the future.

It is a fact, then, I wish to emphasize, that, when confronted with the question of what advice to give to one with heart disease who wishes to have children, we must not base our decision alone on whether we think she will safely pass through the dangers incident to child-birth, of which we cannot assure her, but also on the probable future condition of her heart and health as a result of such extra strain. If we do this we will advise against pregnancy in all such cases.



## Splenomegalic Type of Hypertrophic Cirrhosis

BY N. M. JONES, CLEVELAND.

The following case which I wish to report is of interest chiefly from a diagnostic standpoint:

John K. aged 24, white, single, of Irish birth, a bartender by occupation, presented himself at the Charity Hospital Medical Dispensary on December 26, 1905, complaining of jaundice and general malaise. His family history was negative. His personal history presents the following points of interest: He had been a barkeeper for two years, previous to which had been a laborer; had never been a heavy drinker; had had absolutely no illness during his life with the exception of an attack of typhoid four years ago. Four months ago he had a sore on his penis, which started about two weeks after suspicious intercourse, and healed completely under local treatment in about two weeks. No internal medication was given by his attendant physician at this time or subsequently, and the patient does not know whether it was a hard or soft chancre. However, since that time he has had no sore throat or skin eruption, but has had some loss of hair.

He first began to feel badly about December 10, two weeks before presenting himself for treatment. The initial symptoms were gradual loss of appetite, malaise and disinclination to work. One week later he first noticed conjunctival icterus, and observed that his stools were clay colored. A day or so later his urine began to be highly colored. From then on he grew steadily worse until December 25, when he had a slight chill. His stools have been soft, he has had absolutely no pain, and has never vomited, although for a few days before I first saw him he had been slightly nauseated.

Physical examination showed a man of medium height, well built, and well nourished, profoundly icteric. His conjunctivæ were lemon colored, the mucous membranes slightly cyanotic, and there was a marked fœtor ex ore. His tongue was covered with a thick brownish, offensive appearing coat, the throat was generally reddened, but showed no lesions of any kind. There was no edema, no skin eruption, and no tenderness or roughening of the long bones. The superficial lymph glands over the entire body were enlarged, the right cubital being markedly hy-

pertrophied, which latter may perhaps have been due to an infection of the middle finger of that hand which he had suffered a short time before. His temperature was  $101^{\circ}$ , pulse 110, regular, rythmical, and of large volume. The lungs were negative, the heart's apex was in the mammary line, in the fifth interspace; the other boundaries were normal, and there were no adventitious sounds to be heard. The liver extended from the sixth interspace in the mammary line to 4 cm. below the costal margin. On palpation it was tender, the edge rounded and the consistency not increased. The spleen, and this is the interesting point, was markedly enlarged, extending from the seventh interspace in the anterior axillary line to 5 cm. below the costal margin, and the edge was sharp and very hard. The urine was free from albumin and sugar, but contained bile. The blood showed hemaglobin 95% by Tallquist, the red blood corpuscles 4,860,000, and the white corpuscles 7,600. The differential count showed no variation from normal.

Under rest in bed, milk diet, sodium phosphate, and hydrotherapy his temperature reached normal on the second day and his pulse subsided to 60, both temperature and pulse remaining constant during the further course of his illness. The icterus, too, gradually subsided, and he was discharged from the hospital January 13, feeling perfectly well, and with skin, stools, and urine of normal color, and conjunctivæ rapidly fading. His liver at this time was still slightly enlarged, and the spleen had not materially altered in size or consistency. When last seen January 21, the conjunctivæ were clear, but the splenomegaly still persisted.

Naturally when first seen the question of diagnosis was paramount. Several possible diagnoses offered themselves, and acute catarrhal jaundice, splenomegalic hypertrophic cirrhosis, secondary lues, Weil's disease, and Banti's disease were each considered. The absence of severe muscular pains, albuminuria, and the apparent mildness of all symptoms aside from the icterus served to rule out the acute infectious icterus of Weil. The examination of the blood immediately disposed of the possibility of Banti's disease, in which, as is well known, there is a marked anemia of the chlorotic type, as did also the absence of gastrointestinal hemorrhage, a fairly constant feature of this disease. The diagnosis was then narrowed down to the consideration of catarrhal icterus, hypertrophic biliary cirrhosis, and secondary lues. The mode of onset suggested catarrhal icterus, but when first seen his pulse was 110, and most authorities are united in the obser-

vation of a slow pulse in this condition, although Rolleston quotes J. Mackenzie as never having seen a slow pulse in icterus. Then, too, the enlargement of the spleen was against this diagnosis, a splenic tumor is not met with as a result of acute catarrhal jaundice, neither is the liver commonly so much enlarged and tender. (Rolleston.) During the secondary stage of syphilis, jaundice is sometimes met with, but this commonly appears coincident with the outbreak of the rash; nor would secondary syphilis account for the size and hardness of the spleen.

On the whole, the diagnosis of a biliary cirrhosis seemed, at first, the most probable to me, though others who saw him at the same time were inclined to look upon it as a catarrhal jaundice. The points which, to my mind, spoke for this diagnosis were first, the age of the patient, Hanot's cirrhosis being most common in young individuals, the disproportionate enlargement and hardness of the spleen, and the enlargement of the liver. Gilbert and Chauffard have described a type of biliary cirrhosis in which the splenic enlargement is the predominant factor. This they have called the splenomegalic type of hypertrophic cirrhosis, and this type is, I believe, fairly well recognized, especially by the French. In this the mode of onset as described by Gilbert (*Le Semaine Medical*, 1900 p. 186) is often much as in our patient, with fever, malaise, and the sudden appearance of jaundice. However, the subsequent course of the attack would seem to indicate catarrhal jaundice, as it subsided under simple treatment. Yet the spleen still remains large. True the patient had typhoid four years ago but typhoid, according to Curschman does not leave behind a permanent splenic tumor as does malaria. Now the question I would like to put to the Section is whether we are justified in predicting that similar attacks of jaundice will recur and the patient show the more definite evidences of a cirrhosis in his later history or whether we are bound to assume, as some of my colleagues who have seen the case contend, that the splenic enlargement is due to some unknown element in his past history, and is entirely independent of what they are pleased to consider a simple attack of catarrhal jaundice.



# The Cleveland Medical Journal

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## EDITORIAL

### The Annual Meeting of the State Medical Association

The State Medical Association will meet in Canton, May 9th, 10th, and 11th. This no doubt will be the greatest Medical gathering the State Society has ever had. We have many more members enrolled than ever before, and Canton is easily reached by steam and trolley lines; and moreover the profession of Canton and Stark County have promised to take the best of care of the Association in the way of entertainment, etc., etc.

Look for the April number for full information in regard to the Canton meeting.

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### \*Can the State Discriminate in Favor of Christian Science?

The Christian Scientists are trying to get legal sanction for their cult by asking the Ohio legislature to permit their healers to make professional visits to the sick and accept fees for same.

Liberty of conscience must, under our laws, be respected so long as the individual conscience does not ask or attempt to do things that contravene the natural or positive laws or legal enact-

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\*This editorial is taken from the Catholic Universe, March 2, 1902. It expresses the situation so clearly that we publish it in full. Though this matter has now been definitely settled, we still consider this editorial of such importance that we take this opportunity of presenting it to our readers.

ments which experience has proven to be necessary for the general good.

The man who insists upon the right to sacrifice his own children may be following what to him seems a religious motive, but in the history of the world no nation has ever sanctioned the claim by yielding to fanatics whose freedom of conscience demanded it.

The Mormons are not allowed to practice polygamy, and the healthy, moral and religious sentiment of the country endorses the law that forbids it. Yet the Mormons insist that it is a part of their religion to advise and permit a plurality of wives. Other instances might be adduced, but in every case where the so-called claims of conscience are contrary to the natural or moral law and ordinances framed to safeguard the general good, they have been refused.

Strictly speaking, the state does not take cognizance of the motives of men; it deals with overt acts. It does not inquire into the motives which make certain people disregard the usual precautions in contagious diseases, but it does insist that sanitary regulations shall be respected. The neglect of the ordinary safeguards against disease or the neglect that allows the sick to die unattended and uncared for, is criminal for most people, but for those who can supply the convenient religious motive it becomes meritorious.

Christian Scientists insist that they have their own ideas about the best manner of dealing with the sick and that they have been as successful in obtaining results as the regular practitioners. As far as cases of hysteria, nervous and mental depression and maladies of that class are concerned, there is some justice in the claims of those who resort to suggestive therapeutics as practiced not only by Christian Scientists but to a large extent by the medical profession. But in cases where a physician as such is really needed, Christian Science has not made good its claims to deal successfully with bodily maladies and never can do so. When the state takes it upon itself to legalize the efforts of any profession or body of men to practice the art of healing, it must have some evidence that they are qualified by study and proper endorsement to do the work.

Such precautions are necessary in order to safeguard its citizens against quackery and the perils of ignorance and incompetency. Wherever human life is in question the state must require some proof of fitness. This it does not only in the case of

the human body itself but in handling of locomotives or steamships or anywhere else that human life would be endangered by ignorance.

Exceptions to this rule cannot and are not made on account of men's religious convictions. Regardless of their religious tenets or affiliation the state must insist that human life shall not be jeopardized by any human claim that seeks exemption from ordinary laws on the score of liberty of conscience.

It is the law of all civilized communities that no one shall be allowed to invite the confidence of the public or attempt the profession of curing the sick until he has satisfied the state that he comes with the credentials of his fitness properly endorsed.

When the state makes, as it rightly does, this demand of the regular medical profession, it cannot demand less of any one else who enters the same field.

It should not strengthen the confidence of the ordinary legislator in the claims of Christian Scientists to know that as a body they are so contradictory in their principles that they can begin by denying the very existence of maladies and end with trying to cure them—for a fee; that they can claim that the human body or any thing else material has no existence only to confound themselves by so many embarrassing inconsistencies that the situation would be laughable if it were not so tragic. If the state can afford to make exceptions to its own rigorous demands it surely should not be in favor of those whose follies and vagaries discredit them in any court of reason while it requires that those who reject these absurdities pursue a full medical course and furnish proof that they have done so.

Men whose basal principle is that disease does not exist should not be taken too seriously by the Ohio legislature when they want state sanction to eradicate it—for a fee. Follies have always existed and always will, but it is not the place of deliberative bodies to dignify them by legal recognition.

In religious practice Christian Scientists are free, under the law, to pray and believe as they please, but if they want to leave the domain of the spiritual and enter the field of dealing with physical ills they must expect to submit to the same requirements that govern other practitioners—no more, nor less.

The cry has been raised by friends of the petition that in denying the demands of Christian Scientists the Ohio legislature will be putting up a barrier against the ministerial duties of the Catholic priesthood. There is no danger whatever. The Cath-



olic priesthood does not visit the sick to heal their physical maladies but to minister to their souls, and for this they require no license from the state and the state requires no accounting from them.

The case of the priesthood and that of the Christian Science healers have nothing in common and those who try to connect them are only doing their best to bolster up a poor cause by getting the support of the most accredited and respectable body of religious teachers that the world knows.

We have no quarrel with the Christian Scientists in so far as their right under the laws to worship God according to the dictates of their conscience is concerned, but we have a right to expect that our lawmakers will rise to the logic of the situation and insist that all who deal with the healing of bodily ills shall furnish the same proofs of fitness that are now exacted of the medical profession.

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### The So-called Uric Acid Diathesis

When Scheele discovered uric acid in 1776, how utterly unconscious must he have been of the place this unknown and but poorly understood chemical compound was destined to assume in medical literature.

If he could have foreseen the inevitable and had, in all innocence however, created the term "uric acid diathesis," it is questionable whether we would willingly accord him as high a place in the roll of honor for his discovery as is his just due.

To Emil Fischer belongs the credit of the discovery and the classification of the purin series, of which uric acid represents one of the end products of oxidation and the product of greatest interest to us at this time, in as much as it is so generally, so unjustly and so absolutely without rhyme or reason held responsible for a large number of vague ailments.

It is, we believe, true that under no other single term, is so much ignorance and actual humbug concealed as under the guise of those magic words, the "uric acid diathesis."

The impression has become so general, in the medical profession, that a "uric acid diathesis,"—whatever that may mean—is really responsible for the many varied pathological states due to deranged metabolism, that the poor layman who has so often heard this now too-familiar term actually believes that an excess of uric acid in the blood, is the sole cause of a host of vague discomforts.

In the absence of any other better or more tangible hypothesis, the uric acid theory of gout has not only held sway in the domain of true gout, but has become so firmly established as the plausible etiological factor in this condition, that it has become all too easy to apply it in a number of apparently similar metabolic disorders. We should give the fullest publicity to every argument which can be advanced against the absurd influence exerted by this chimerical uric acid theory upon medical and lay minds alike. In the Practitioner for January, 1906. Dr W. G. Smith, under the title "On the Theory of Gout; A Protest," makes a strong case against the present conception of the relationship of uric acid to gout, which is as forcible and convincing as it is logical and clear. Dr Smith first calls attention to the fact, so commonly wholly ignored, that uric acid never occurs *free* in the blood—according to Sir. W. Roberts it circulates and is excreted as a quadriurate—and then emphasizes the facts so well known that the limits of excretion of uric acid in gouty and non-gouty individuals, are much the same; that the uric acid content of the blood does not vary in a typical manner with the phases of gout; that uric acid has been demonstrated present in the blood in excess in a number of conditions which have no known relationship to gout, i. e., chronic Bright's disease, malignant diseases, aneurism, lobar pneumonia, etc.; and the frequently forgotten fact that often in leukemia, uric acid may be present in the blood in a larger amount than occurs in the most aggravated cases of gout. It should be remembered that in all these conditions we find no deposits of urates or any evidence of gout as such.

Dr Smith well says: "If we believe popular medical, to say nothing of lay opinion, uric acid is a virulent all penetrating poison." Yet we know it is a normal constituent of our body. Quoting Sollman we are told that, "uric acid shows itself absolutely inactive," save for some local irritation. Whereas large doses of kreatin and kreatinin cause headache, nervousness and slowness of the heart." He further calls attention to the law pointed out by Dr Gore, that uric acid can be no exception to the general law that a substance acts as a poison in direct proportion to the amount of it present in the circulating fluids.

Even as regards the pathological changes we are shown by Dr Chalmers Watson, (British Medical Journal, January 21st, 1905), after a careful histological study "that we have no more right to assign an etiological significance to uric acid than to other substances of an unknown nature."

Admitting as we must the truth of these statements, as to gout, how much more forcibly do they apply to the ridiculous misuse of the much abused term "the uric acid diathesis" to describe the sundry ills to which this term is so unfortunately applied.

Can we not rise in revolt against uric acid and all its congeners? If we must have some term as a cloak for ignorance, let us find a new one.

In the November number of our own Journal under the title "Truth without the Poetry Concerning Uric Acid," Dr Macleod has lifted the veil of visionary hypothesis from this subject and has given us in a way easily understood the sum of our knowledge at the present time of the origin and metabolism of the purin series and established beyond contradiction that this absurd uric acid question has absolutely no experimental evidence in support of it. As Dr Macleod says, "The fantastic theories of a uric acid diathesis; the visionary hypothesis, that all manner of diseases and symptoms are due to a retention of the uric acid in the body; the exhibition of uric acid solvents when at a loss for other remedies for undiagnosable complaints; all this *poetry* must give way before the *truth*. With no experimental evidence in support of it, but an overwhelming amount against it, it is almost incredible how the uric acid diathesis theory has flourished. It has had its day: *requiescat in pace*."

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### Recent Work in Experimental Variola and Vaccinia

Whatever else may be said of our island possessions there is no doubt of their value in offering opportunities for scientific work, and it speaks well for the enthusiasm of Americans in research that no time has been lost in developing these opportunities.

The Philippines furnish us not only a tropical region, where the diseases peculiar to such latitudes may be studied, but also a place where the anthropoid and other apes may be kept for experimental purposes, without dying of intercurrent diseases, as is so frequently the case in temperate climates.

With the discovery that monkeys were susceptible to small-pox, it became obvious that through this means many of the difficulties connected with its study could be overcome, and it has recently been the privilege of the Harvard Medical School to make good use of the opportunity.

Brinckerhoff and Tyzzer, both prominent in the earlier work



under Councilman, have reported progress in their experimental studies, in the January number of the *Journal of Medical Research*, and while there is yet much to be done, there is in their article much that is new and valuable. They have collected the literature on variola in monkeys showing that the earliest records are no further distant than 1874, and that monkeys have been definitely shown to be susceptible to variola and to vaccinia, by inoculation, but in varying degree. General eruptions have followed variola inoculations, but never vaccinia and it is interesting to find that there have been epidemics among monkeys, coincident with epidemics in man in the same locality.

Inoculations of variola and vaccinia by the authors, under parallel conditions, show that vaccine gives rise to a typical local lesion, never followed by general eruptions, but associated with fever, and with enlargement of adjacent lymph glands, whether inoculation was made in the skin, eye, or mucous membrane. In variola inoculations, on the other hand, there is frequently a general eruption after the usual incubation period, and sections of the lesions show the presence of cytocytes in the intra-nuclear, as well as in the intra-cellular stage, a condition never found in vaccinia lesions. The orang-outang, which is nearer to man than is the ordinary Philippine monkey, shows more of the intra-nuclear forms, and it is probable that the chimpanzee, which is even higher in the scale, would show greater susceptibility. This is even more probable since the recent work on the syphilis organism, which shows the chimpanzee to be far the least refractory

The theory that the variola contagion is taken in through the respiratory passages and develops in the lungs before becoming generalized is strengthened by the fact that intra-tracheal and intra-pulmonary infections are positive, and may be followed by a general infection. Exposure to fomites was invariably unsuccessful.

In regard to the amount of protection given against variola and vaccinia by inoculations of one or the other, it was found that while vaccinia of the skin protected against both variola and vaccinia, variola of the skin protected imperfectly against vaccinia. It is the opinion of the writers that immunity is due to a specific germicidal substance, which is formed in greater amount in vaccinia than in variola, thus accounting for the remarkable grade of immunity obtained through the ordinary small, local vaccination.

The place of inoculation is also important, immunity being greatest after skin inoculation, least after mucous membrane

inoculation, which would account for the appearance of the general infection in man in spite of the completion of the primary local lesion in the lungs.

By successive inoculations the development of immunity variations, emphasizing the facts that cytocytes occur in all cases. eleventh days, and against variola between the fifth and the eighth days. In monkeys, however, simultaneous inoculation of vaccine and variola does not protect against the variola, though in man vaccination is protective even after exposure to variola.

Councilman restates his case in the light of these new observations, emphasizing the facts that cytocytes occur in all cases, and show the intra-nuclear forms in true variolous lesions only. The frequency of the intra-nuclear forms is in direct proportion to the closeness of the species inoculated to man, though increase can also be obtained by inoculation of the tail vein. It is rather a comfort to find that vaccine virus is more resistant to heat, desiccation, and to chemical influences than is variola virus.

It is this sort of careful, conscientious and well planned research that will bring American scientific medicine to the front, and too much encouragement cannot be offered to the men who give their lives to such investigations.

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### Medical Institutes (?)

During the month of February, the letter which we print below, was sent out by the X-Ray Medical Institute to one of its patients. As this letter speaks for itself we publish it in full. It should be borne in mind that the contract which the prospective applicant for treatment signs, is in the nature of a promissory note, to pay to the said Institute \$40.00, though we are advised that in the legal interpretation of the term it could not be held to be such. It is further interesting to note that the diagnosis in the case referred to in this letter, made by three well-known physicians of Cleveland, was carcinoma of the stomach.

#### OFFICE HOURS.

9 to 12 A. M. 1 to 5 P. M.  
Evenings 7 to 8.  
Sundays: 10 A. M. to 12 M.

#### OFFICES OF

X-RAY MEDICAL INSTITUTE.  
352 The Arcade.

Cleveland, Ohio, Feb. 1906.

Dear Madam:—On looking over your case we find that you have not been in to see us since the — of December. Now if you will look over your contract with us, you will find the conditions there, and know what is expected of you. You paid us \$10.00 on the — of January and on the

— you agreed to pay us the balance \$40.00 which entitles you to your full course of treatment should it take us six months or a year to cure you without any further cost on your part as professional fee. If you look this matter in the right way, you will find that our price will be 1-2 to 1-3 less than the treatment you could get from any other first class physician in the city for the same length of time. Why you enter into a contract and do not fulfill it, is more than we can understand for this contract is just as binding as though you had given us a mortgage on your property, and we expect that you will fulfill it, the same as you expect us to fulfill our part of it. Now we would much rather you would go on with your treatments, and give us a chance to cure you, and hope that you will do so as we do not care to make any unnecessary trouble.

We have written you two different letters and have received no reply to either, and we hope in this matter you at least write us and let us know why you have not been down to do your part, for our reputation is at stake in all cases, and we think more of our reputation than we do of 10 times the amount of money that you would have to pay us, knowing that when we have cured you, your influence will be far reaching.

Now we hope that you will reconsider this matter and call upon us at once and resume your treatment, and do your part, and give us a chance to do ours. If you do not intend to do so, the contract would have to be fulfilled on your part any way and we do not want to cause you any unnecessary trouble in the matter, as we try to do business only one way and that is the right way.

Hoping that we will see you soon and that you will resume your treatment we remain,

Sincerely yours,  
X-Ray Medical Institute.  
per B. E. Ottman, Mgr.

(Signed)

We abstract below Section 7514 from the Ohio Statutes covering the right to practice medicine and surgery in this State. Any further comment is unnecessary.

“Any person practicing medicine or surgery as defined in section 7513 (4403f) in this state, without having first complied with the provisions of sections 7510 (4403c) and 7511 (4403d), except as (t)herein provided, shall be deemed guilty of a misdemeanor, and shall be fined not less than twenty dollars nor more than five hundred dollars, or be imprisoned in the county jail not less than thirty days nor more than one year or both.”

Practicing medicine is defined in section 7513 (4403f), as follows :

“Any person shall be regarded as practicing medicine or surgery or midwifery within the meaning of this act, \* \* \* \* \* who shall prescribe, or who shall recommend for a fee for like use any drug or medicine, appliance, application, operation or treatment of whatever nature, for the cure or relief of any wound, fracture or bodily injury, infirmity or disease. \* \* \* \* \*



## Department of Therapeutics

CONDUCTED BY J. B. MCGEE, M. D.

### Opium:

In the *American Journal of Medical Sciences*, for January, J. H. Musser, advises the use of opium in myocarditis and weak heart, believing that there are sound clinical reasons for the belief that opium is a tonic in cardiac debility, the flagging heart induced by pain or other depressive measures being brought up by morphin. He asks, who does not prescribe this drug in the sudden heart failure of myocarditis the asystole with the accompanying edema of the lungs of this affection, and who does not give it in rheumatism for its tonic cardiac effect? He pleads for the continuous use of opium or morphin also in myocarditis to prevent angina pectoris, or to lessen the effect or defer the dreaded asystole. He has had patients take for months and months small doses of the deodorized tincture or the extract of opium, thereby checking waste, reducing the susceptibility to peripheral sensations which fret an irritable heart, replacing exciting stimulants, as alcohol and strychnin, calming a perturbable nervous system, and lessening the necessity for food to the relief of digestion, metabolism and elimination. In cases of weak heart after exhausting disease, after prolonged mental and physical pain, and without organic lesion of valves or muscle, opium is of advantage. In cases of failing compensation with the onset of stases, the heart is supported, especially if the unfortunate possessor is an impressionable subject who fumes because of the ordinary irritations of life. It is of value in the gradual engorgements from myocarditis, and in arteriosclerosis. The dyspnea of myocarditis is relieved or prevented by continuous small doses of morphin for a long time, and he has seen the tachycardia, of Graves disease relieved, and in three cases it appeared to the cure of the disease.

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### Calcium Salts:

H. A. Hare, in the *Therapeutic Gazette*, for January, refers to Wright's investigations as to the influence of the calcium salts in increasing the coagulability of the blood, and states that there can be no doubt that in those cases, in which there is delayed coagulation, the proper administration of this remedy is advantageous. It should be borne in mind, however, that if given too freely and for too long a time, it may delay rather than hasten coagulation. The administration of cow's milk which contains an excess of calcium as compared to human milk, greatly increases the coagulability of the blood, and tends to develop a tendency to the formation of thrombi, the absolute milk diet of typhoid fever in Wright's opinion being capable of causing the development of phlegmasia alba dolens. Further points of interest are, first, that a constitutional incapacity, complete or partial, for the absorption of calcium salts may explain repeated attacks of hemorrhage, or serious hemorrhage as represented by urticaria. Second that the development of urticaria or local hemorrhages, after the administration of rhubarb, which contains oxalic acid, or of acid fruits, which contain citric, tartaric and malic acids, is dependent upon the inability of the body to store up a reserve of calcium which can be drawn upon when

these acids decalcify the blood. Thirdly, the hypodermic injection of calcium salts is indicated in cases in which the hemorrhage of urticaria is exceedingly severe, or in which there is reason to believe that the absorption of calcium salts by the alimentary canal is imperfect or absent. As calcium lactate is more soluble (1 to 10 of water) than calcium chlorid and does not produce so much irritation, it is to be preferred for hypodermic use. It is also shown that magnesium carbonate increases the coagulability of the blood, and when it may be advisable to diminish the coagulability of the blood, citric acid is the agent recommended. In cases of typhoid fever when a rigid milk diet has been adhered to, it is believed the danger of thrombosis may be much diminished by the use of citric acid.

### Antitoxin:

B. Franklin Roger, in *Medicine*, for January, believes that there are as good indications for dosage of diphtheria antitoxin as for digitalis, or any other therapeutic remedy. A large amount exudate calls for a large dose of antitoxin. A large amount of pseudo-membrane means many thousands or millions of germs at work, a large amount of toxic elaborated and absorbed, and hence a great quantity of antidote required. The location of the lesion has something to do in the determination of the dosage. The posterior nares, the superior pharynx, and uvula are underlaid with a network of lymphatics all opened by the coagulation necrosis. In this location a larger proportion of toxin is thrown into the lymphatics and directly into the blood than in other situations. With the tonsil alone involved, particularly if the tonsil has been the site of repeated inflammation, the lymphatic supply is least efficient, and absorption is correspondingly less rapid. The dosage he has followed is with a single tonsil involved 2500 units, both tonsils 5000 units, both tonsils with pillars or uvula 5000 to 7500 units, both nares and larynx or pharynx 7,500 10,000 units. In each instance the dose is repeated in from 12 to 24 hours, unless the exudate rapidly disappears. The succeeding doses are given in 24 hour intervals of the same size, or with a decreasing number of units, until the membrane has in good part disappeared. A careful study of nearly 2000 infections of all grades of diphtheria coming under treatment in all stages of the disease has convinced him that this is a rational procedure. He has seen patients saved by heroic dosage when death seemed inevitable, and places special stress upon its well known immunizing powers.

### Zinc Phosphid:

*The American Journal of Clinical Medicine*, for January, highly recommends zinc phosphid in the treatment of herpes zoster. In an obstinate case, this drug was given, and marked relief ensued within 24 hours, and the patient was almost well in another day. No case of this disease has come to the writers attention since, which has not yielded in the same manner to this remedy. As to its method of action, it is assumed that in this disease, the phosphid acts as a nutrient, and relieves the apparent disease by improving the deranged nutrition of the affected nerve tissue. If this be true, the same remedy would probably be of aid in other diseases in which there is degeneration of nerve tissues with peripheric manifestations. Acting on this principle the author of the article, has used the drug in numerous cases of inveter-



ate neuralgia, in excessive hyperesthesia, and other diseases of peripheric tracts, with a success confirming his view as to the action of the remedy. He also suggests its use in the whole group of maladies depending upon degeneration of the various tracts, in the spinal cord, of which locomotor ataxia is one; the wet brain of chronic alcoholics, and paresis, as well as in neurasthenia. As to the dosage, he has settled down to one sixth grain as the average adult dose, to be given one hour previous to each meal, and just before going to bed, in order to avoid having the remedy broken up by the digestive fluids, with the evolution of phosphureted hydrogen, and nauseous eructations so unpleasant to the patient. He does not know as to its causing necrosis like phosphorus. In the dose mentioned it has proved safe, but has acted so powerfully and promptly, that he has never given it for longer periods than one week. In neurasthenia and the more chronic forms of nervous disease he is in the habit of giving zinc phosphid in the above dose for one week at a time each month, substituting lecethin for the balance of the month, and believes it a valuable combination in the treatment of neuroses in general.

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**Barium Chlorid:** The *Medical World* for January, calls attention to the fact that barium chlorid is of value in infectious diseases in which the circulation is weakened by central vasomotor paralysis rather than by primary weakness of the heart. The drug acts chiefly by increasing the blood-pressure through the influence it exerts upon the vasomotors. The results in pneumonia are particularly good. This is a drug which has been too greatly neglected in the search for more quickly acting preparations.

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**Nephritis:** James Tyson, in the *New York Medical Journal*, February 3, gives the general line of treatment in chronic nephritis, and believes it may be safely said that there is no drug which promotes a return to its normal condition, of a kidney, in a state of so-called chronic inflammation, interstitial or parenchymatous. He states that, except to meet certain symptoms, the result of the disease, drugs are for the most part of no use, and probably on the whole more harm than good has been done by them in the treatment of chronic nephritis. Digitalis may be harmful in overworking the heart and there is no drug known which will diminish albuminuria directly or indirectly. Abnormally scanty secretion of urine is best treated by potassium citrate, in 10 or 15 grain doses every second or fourth hour. He has never been able to satisfy himself that the widely known Basham's mixture is a diuretic except through the water it contains. Anemia is best treated with iron, although iron is sometimes harmful in locking up secretion. One other drug requires notice and that is the potassium or sodium iodid. This has acquired quite a reputation as a permanent vasodilator, and is used from this standpoint a good deal, especially where there is much arteriosclerosis. He uses it in most of his cases, commonly in small doses, rarely exceeding five grains, three times a day. In such cases it is generally well borne, certainly does no harm, but he does not as yet know how much good it does. As regards the use of opium in cases of Bright's disease, he believes it best to get along without it, if possible. He frequently uses it for concurrent affections, but always with some concern



and gives it tentatively in small doses, feeling his way. In the treatment of convulsions in contracted kidney, nothing could induce him to use it, but in parenchymatous nephritis, acute and chronic, it may be given with comparative safety.

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### Tonsillitis :

In the *Medical Bulletin* for January (From *British Medical Journal*), A. Sbrocchi, believes that the usual forms of treating follicular tonsillitis completely fail both in limiting the extension of the disease, and in diminishing the sufferings of the patient. He bases his success entirely on his local treatment, which consists in the systematic painting of the tonsil with a one to 1000 solution of bichlorid of mercury. At each sitting each tonsil should three times be painted in turn all over with the solution on a cotton wool sponge fastened to the end of a penholder. At the first sitting a patient and gentle attempt should be made to remove all secretion from the tonsil both in front and behind, but without wounding the membrane. The soft palate and uvula should also be touched with the solution. The sittings should be repeated at intervals of three or four hours. If thoroughly carried out, even a single painting will be followed in the course of a few hours by a decided fall of temperature and improvement.

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### Antistreptococcic Serum :

B. C. Hirst, in *American Medicine* for January 27, states concerning the use of antistreptococcic serum in the treatment of puerperal infection, that the Marmorek serum was used extensively all over the world with disappointing results. He employed it for over two years in some twenty odd cases without perceptible effect. A committee of the American Gynecological Society reported adversely on it, so that the majority of specialists in America dropped it. Lately, however, a serum has been prepared in this country which can be secured fresh and which laboratory experiments at least have shown to be efficient. He has employed this in eight severe cases, five of which were not benefited in the least, three of which seemed to be markedly benefited, and in two of the latter, the serum seemed to be immediately curative. Large doses (80 cubic centimeters) should be given and the administration should be begun as early in the course of the disease as possible.

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### Thiosinamin :

S. McCullagh, in the *Medical News* for December 30, 1905, states that probably the most distressing and annoying symptom both to the physician and to the patient that the otologist is called upon to deal with is tinnitus, and any drug that will relieve this condition is sure of a warm welcome. The great desideratum in any drug is that it shall act directly and singly on the affected part, and that its action shall be confined to that part. Directly or indirectly tinnitus is generally caused by an increase of or change due to, connective tissue in the middle ear, with which are associated other factors acting in different ways. In thiosinamin we have a drug which has a direct selective action on low-grade tissues and especially on new connective tissue, with no action on the general organism except a slightly tonic action. All of the writer's experience with the drug, which he has

been using for more than a year has been with its administration by the mouth, and he can see no good reason for using it hypodermically, and many disadvantages. The dose is from one-half to three grains, three times a day commencing with the weaker dose, and increasing necessary. The contraindications to the use of the drug are conditions in which the new connective tissue is serving some useful purpose, as the encapsulation of tuberculous foci, abdominal scars, etc. He concludes (1) that this drug exerts a markedly beneficial action on ear disease accompanied by the formation of new connective tissue; (2) that this beneficial action is due to an increased pliability of this tissue allowing the usual forms of treatment to accomplish their object better; (3) its administration should always be accompanied by mechanical measures; (4) as good results may be obtained by administration by the mouth as hypodermically; (5) better and more prompt results may be obtained in recent cases; (6) It exerts a beneficial action on vertigo; (7) care should be used in contraindications; (8) that better results may be obtained with it in the relief of tinnitus aurium than with any drug used heretofore.

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### Academy of Medicine of Cleveland

The thirty-first regular meeting of the Section was held at 8 p. m., Friday, February 2nd, 1906, at the Cleveland Medical Library. Program—Report of Case of Icterus, Dr N. M. Jones; A Case of Puerperal Tetanus, Dr J. J. Thomas; Status Lymphaticus, with Death Under Ether Anaesthesia; Autopsy, Dr A. F. Furrer; Report of Cases of Cancer of Penis with Exhibition of Specimens, Dr A. F. House. Members are requested to present interesting cases and specimens.

JUNIUS H. MCHENRY, M. D.,  
Secretary.

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The thirty-fifth regular meeting of the Academy was held at 8 p. m., Friday, February 16th, 1906, in the Assembly Room, Hollenden Hotel. Program: Experimental Medicine Section, Dr Torald Sollman; 1. Gall Stones: Diagnosis and Surgical Treatment, Dr F. E. Bunts; 2. Diagnosis of Infantile Syphilis, Dr E. F. Cushing; 3. Oral Infection, Dr W. H. Whitslar; 5. Orthodontia: Illustrated by Stereopticon, Dr F. M. Casto.

CLYDE E. FORD, M. D.,  
Secretary.

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The twenty-fourth regular meeting of the Experimental Section was held at 8 p. m., Friday, February 9th, 1906, at the Cleveland Medical Library. Program—On a New Method of Transfusion; Resuscitation after Extreme Hemorrhage, Chloroform, Ether and Asphyxia; Drs Crile and Dolley. At the last meeting of the Section it was decided to try the experiment of a "Question-Box." Members of the Section are therefore invited to communicate with the Secretary concerning topics of experimental interest for discussion.

TORALD SOLLMAN, M. D.,  
Secretary.

## Alumni Association of St. Alexis Hospital

St. Alexis Hospital Alumni Association of Former Resident House Physicians. The fortieth regular monthly meeting of the Association was held at the St. Alexis Hospital, on Thursday, March 1st, at 8 p. m. sharp. Program: Dr. L Marsh Dollaway, of Toledo, Ohio, presented a paper on the "General Diagnostic Value of the Roentgen Rays," with Stereopticon Illustrations.

Presentation of cases and specimens by the House Staff.

MYRON METZENBAUM, M. D.

1242 Willson Ave.

*Secretary.*

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## German Medical Society

The 127th regular meeting of this Society was held at 8.30 p. m. at 1006 Rose Building, on February 6th. Program: Report of Epidemic Glandular Disease in School Children," W. E. Sampliner; "Physiology in the Realm of Pathology," with original research, I. M. Belkowski.

The 128th regular meeting was held at 8.30 p. m., 1006 Rose Building, on February 20. Program: "Postoperative Accidents," C. A. Hamann. Dr Hamann was entertained with an informal smoker after the meeting.

W. E. SAMPLINER,

*Secretary.*

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## Ohio State Pediatric Society

The annual meeting of the Ohio State Pediatric Society will be held in Canton on May 8. As yet the program for this meeting is not completed. We shall hope to publish same in the April number of the Journal.

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## Ohio State Dermatologic Society

Following the precedent of the Ohio Pediatric Society, which has held large, interesting and well-attended sessions once a year, one day prior, but at the same place of meeting of the Ohio State Society, for the past several years, the Ohio Dermatologic Society, is preparing to successfully launch itself next May in Canton. There is a demand on the part of the profession for such an organization, for the purpose of self-improvement along a line of work of considerable general interest, and in which early medical training in past years was somewhat neglected. The papers to be presented are intended to possess general interest and broad scope. The work will be supplemented with lantern demonstrations, the use of which will be freely encouraged, in order to render it as interesting and instructive as possible. An effort will also be made to gather together clinical material in every locality in which the meetings are held, not only for the purpose of elucidating rare and puzzling cases, but also for their practical and instructive as well as scientific interest.

It is the object of the society to eventually meet conjointly with the Ohio State Society, and, if practical, to become an affiliated body, but the first meeting will be held conjointly with the meeting of the Ohio Pediatric Society in Canton next May. The following preliminary programme is



announced: S. J. Wright, M. D., Akron, Psoriasis, with an Unusual Case; W. J. Lefever, M. D., Cleveland, Diseases of the Scalp Affecting the Hair; Charles J. Shepherd, M. D., Columbus, O., Blastomycosis, with a Report of a Case; A. E. H. Maerker, M. D., Napoleon, O., The Treatment of Varicose Ulcer; M. L. Heidingsfeld, M. D., Cincinnati. Some Clinical and Pathological Conditions of Skin Cancer, from Lantern Demonstrations; Pearl Hahn, M. D., Cleveland, Pruritus; H. B. Kurtz, M. D., Cleveland, Herpes; James S. McClelland, M. D., Bellaire, Report of a Case of Lupus, Cured by X-ray.

The following have signified their intention to contribute papers, but will announce the titles later: Leo Reich, M. D., Cleveland; A. Ravogli, M. D., Cincinnati; C. T. Pearce, M. D., Cincinnati; E. B. Tauber, M. D., Cincinnati; E. Shields, M. D., Cincinnati; R. C. Kinnaman, M. D., Ashland, O.; F. Young, M. D., Marion, O.; F. W. Turnin, M. D., Findlay, O.; J. C. Larkin, M. D., Hillsboro, O.; C. M. Alford, M. D., Lancaster, O.; J. H. Steele, M. D., Guysville, O.

The prospective membership list embraces over 200 names. Those who are desirous of contributing to the programme by presenting papers, case reports, or exhibiting patients, photographs or specimens, or of becoming active members, kindly send their names, with one dollar to defray the expense of effecting the organization, and the conduction of the initial meeting, to Dr M. L. Heidingsfeld, 19 West Seventh Street, Cincinnati.

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### Books Received

Transaction of the Luzerne County, Pa., Medical Society, for the year ending December 31, 1905. Volume XIII. Organized March 1861. Wilkes-Barre, Pa. The E. B. Yordy Co., Printing and Blank Book Making.

Food and the Principles of Dietetics, by Robert Hutchison, M. D. Edin., F. R. C. P., Assistant Physician to the London Hospital and to the Hospital for Sick Children. William Wood & Company.

The Relations of Skin Diseases to Internal Disorders, by L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital. Rebman Company. New York.

Influence of the Menstrual Function on Certain Diseases of the Skin, by L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital. Rebman Company. New York.

A Laboratory Manual of Physiological Chemistry, by E. W. Rockwood, M. A. F. A. Davis Co. Philadelphia.

Christianity and Sex Problems, by Hugh Northcote, M. A., F. A. Davis Company. Philadelphia.

The Physical Examination of Infants and Young Children, by T. W. Kilmer, M. D., Adjunct Attending Pediatricist to the Sydenham Hospital, etc. F. A. Davis Company. Philadelphia.

Food and the Principles of Dietetics, by Robert Hutchison, M. D. Edin. F. R. C. P., Assistant Physician to the London Hospital and to the Hospital for Sick Children. William Wood & Company. 1906.

## Army Medical Corps Examinations

Preliminary examinations for appointment of Assistant Surgeons in the Army will be held on May 1st and July 31st, 1906, at points to be hereafter designated.

Permission to appear for examination can be obtained upon application to the Surgeon General, U. S. Army, Washington, D. C., from whom full information concerning the examination can be procured. The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between twenty-two and thirty years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training or its equivalent in practice. The examinations will be held concurrently throughout the country at points where boards can be convened. Due consideration will be given to the localities from which applications are received, in order to lessen the traveling expenses of applicants as much as possible.

In order to perfect all necessary arrangements for the examinations of May first, applications must be complete and in possession of the Surgeon General on or before April 1st. Early attention is therefore enjoined upon all intended applicants.

There are at present twenty-five vacancies in the Medical Corps of the Army.

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## Book Reviews

Saunders' Question-Compends. No. 1. Essentials of Physiology prepared especially for students of medicine, by Sidney P. Budgett, M. D. Professor of Physiology in the Medical Department of Washington University, St. Louis. Second Edition, thoroughly revised, by Haven Emerson, A. M., M. D., Demonstrator of Physiology in Columbia University (College of Physicians and Surgeons), New York. Arranged with questions following each chapter. Illustrated. Philadelphia and London. W. B. Saunders & Company. 1905.

This little work shows additions to the subject matter of the first edition, which will bring it more up to date. The purpose of the book is not so much to serve as a text-book, but to supplement the study of a larger work by suggesting questions and to present the essential details in a connected manner, which will facilitate the rapid review of the subject. It will therefore prove very useful to students preparing for an examination.

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Dissecting Manual Based on Cunningham's Anatomy, by W. H. Rockwell, Jr., M. D. Formerly Assistant Demonstrator of Anatomy in the College of Physicians and Surgeons, Columbia University, New York. William Wood & Company, New York, 1905.

This is intended for use in the dissecting-room in place of a larger and less convenient volume on anatomy, and it is arranged however, for combined work with Cunningham's Anatomy and at the end of each paragraph are numerical references to the corresponding pages in the latter work. The great drawback of this work seems to be a lack of direction to the

student as to how to proceed in his work and as to what structures will be found in a given region and their approximate location there. The various anatomical structures are considered separately, thus all the muscles of the upper extremity are grouped together followed by the nerves, arteries, etc. In this respect the work will be valuable to a student in reviewing his completed dissection.

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Laboratory Manual of Physiology, by Frederick C. Busch, B. S., M. D. Professor of Physiology, Medical Department, University of Buffalo. Illustrated. New York. William Wood & Company. 1905.

This manual will prove very useful to students in their practical physiological experiments. In order to encourage the student's powers of observation, it has seemed best to the author to withhold the statement of the results of the experiments. To many this will sound questionable as even with the most careful technic the results are often the reverse of what they should be and a wrong impression will therefore be made. Whereas if the results are given in the text, the student will realize that the experiment has failed. The book is well gotten up and amply illustrated.

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A Manual of Midwifery for Students and Practitioners, by Henry Jellett, B. A., M. D., (Dub. Univ.), F. R. C. P. I., L. M. Gynecologist and Obstetric Physician to Dr Stevens' Hospital, Dublin; Extern Examiner in Midwifery, Royal University of Ireland; Examiner in Midwifery, Royal College of Physicians, Ireland; Ex-Assistant Master, Rotunda Hospital; Ex-University Examiner in Midwifery and Gynecology, Dublin University. Nine plates and 467 illustrations in the text. William Wood & Co. New York.

This volume deals with the theory and practice of obstetrics in a very satisfactory manner. Although the size of the book is moderate, every branch of the subject is most fully considered and at the same time there are a large number of illustrations, most of these are original but a number have been reproduced from standard works on obstetrics. As a rule the subject matter is thoroughly up to date and it is therefore rather surprising that in the able discussion upon symphysiotomy, no reference is made to the extramedian operation of sawing through the body of the pelvic bone which is claimed to have many advantages over the classical procedure. The work deserves high recommendation and will occupy a high position among works upon midwifery.

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The Physical Examination of Infants and Young Children. By Theron Wendell Kilmer, M. D., Adjunct Attending Pediatricist to the Sydenham Hospital; Instructor in Pediatrics in the New York Polyclinic Medical School and Hospital, New York; Attending Physician to the Summer Home of St. Giles, Garden City, New York. Illustrated with 59 Half-tone Engravings. 12mo., 86 pages. Bound in Extra Cloth. Price, 75 cents, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

This little volume has been prepared with a view to supplementing the subject as it is considered in most text-books on pediatrics, the author apparently considering that the physical examination of young children is



inadequately taught. The approved method both of history taking, physical inspection and physical examination are thoroughly covered in this monograph which is profusely illustrated. With the author's recommendation of the use of the percussion hammer, we can not agree.

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**Laboratory Guide in Experimental Pharmacology.** Directions for the course given in the University of Michigan, By Charles W. Edmunds, A. B., M. D., Instructor in Pharmacology in the University of Michigan and Arthur R. Cushny, A. M., M. D., Professor of Pharmacology in University College, London, and late Professor of Materia Medica and Therapeutics in the University of Michigan. George Whar, Publisher and Bookseller, Ann Arbor, Michigan.

This Laboratory Guide in Experimental Pharmacology is essentially an outline for the course as given in the University of Michigan and prepared as it is under the direction of Dr A. R. Cushny and Dr C. W. Edmunds, needs no additional endorsement. The work is interleaved with blank pages for the purpose of individual entries.

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**Lectures on Auto-Intoxication in Disease, or Self-Poisoning of the Individual.** By Ch. Bouchard, Professor of Pathology and Therapeutics; Member of the Academy of Medicine and Physician to the Hospitals, Paris. Translated, with a Preface and New Chapters added, by Thomas Oliver, M. A., M. D., F. R. C. P., Professor of Physiology, University of Durham; Physician to the Royal Infirmary, New Castle-Upon-Tyne; Formerly Examiner in Medicine, Royal College of Physicians, London. Second Revised Edition. Crown Octavo, 342 pages, Extra Cloth. Price, \$2.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

Bouchard's lectures on auto-intoxication have been so well known that any extended review of this second edition seems superfluous. In the range of physiological pathology there is hardly a subject more important than that devoted to the study of the development of toxins and poisonous alkaloids in the individual. No subject in medicine commands greater interest. In this translation, Dr Oliver, has rendered a distinct service to the English reading public in translating in perfect sympathy the author's text, and interpolating in editorial notes, the views of the modern chemists and physiological pathologists upon the subject; and in his judicial criticism of the various theories advanced by the author. It is safe to say that this, the second edition of this work will be received with the same interest and appreciation by the profession at large as was accorded its first appearance.

The volume is concluded by an appendix by the translator upon the natural defense of the organism against disease and the internal secretions, a very interesting resume of the subject of immunity in all its diverse applications.

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**Cleft Palate and Hare-Lip.** By W. Arbuthnot Lane, M. S., F. R. C. S., Quarto. 63 pages. Illustrated. Medical Publishing Company, Ltd. London, England. 1905.

This monograph possesses the unusual features of quarto form and exceptionally large type, and is most satisfactorily illustrated. The author

discusses in an interesting way the causes of congenital and acquired lack of development in the naso-pharynx with the results they produce, and measures for their relief. He takes the advanced ground that cleft palate cannot be operated upon too early, and states that his experience with early operations has entirely substantiated his position both as to end results and tolerance of the patients. The illustrations show most clearly his methods of flap formation, which would seem to insure better closure than those previously advocated.

The monograph is a most able contribution to plastic surgery.

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**Hare's Therapeutics.** A Text-book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Physician to the Jefferson Hospital, etc. New (11th) editon, enlarged and thoroughly revised to accord with the eighth decennial revision of the U. S. Pharmacopœia, 1905. In one octavo volume of 910 pages, with 113 engravings and four colored plates. Cloth, \$4.00, net; leather, \$5.00, net; half morocco, \$5.50, net. Lea Brothers & Co., Philadelphia and New York, 1905.

Hare's Therapeutics is so well and favorably known, that the present volume, representing its eleventh edition, will doubtless receive, as it certainly merits, the welcome of its predecessors. It retains all the excellence of former editions, and not only considers fully all the changes and additions of the new U. S. Pharmacopœia, but incorporates the preparations of the British Pharmacopœia as well. The subject is treated under four general headings, the section devoted to the treatment of diseases being especially practical and valuable. It is to be recommended as one of the best and most thoroughly satisfactory books that we know.

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**Anatomy, Descriptive and Surgical,** By Henry Gray, F. R. S., Fellow of the Royal College of Surgeons; Lecturer on Anatomy at St. George's Hospital Medical School, London. Edited by T. Pickering Pick, F. R. C. S., Consulting Surgeon to St. George's Hospital and to the Victoria Hospital for Children, London; H. M. Inspector of Anatomy in England and Wales, and Robert Howden, M. A., M. B., C. M., Professor of Anatomy in the University of Durham; Examiner in Anatomy in the Universities of Durham and Edinburgh, and to the Board of Education, South Kensington. New American Edition. Thoroughly Revised and Re-edited with Additions by John Chalmers DaCosta, M. D., Professor of Principles of Surgery and Professor of Clinical Surgery in Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital; Consulting Surgeon to St. Joseph's Hospital. Illustrated with 1132 elaborate engravings. Lea Brothers & Co., Philadelphia and New York. 1905.

It is a pleasure to welcome this, the last edition of Gray's familiar text-book upon anatomy. In this age of production when there are so many valuable works upon anatomy, each dealing with the subject from a different standpoint, it is comforting to be able to turn to this standard work and find the sum of all our modern anatomy embodied in this standard and eminently practical volume. The editor, Dr John Chalmers DaCosta,

is to be congratulated upon the way in which he has succeeded in incorporating the best work of the modern anatomists. The student of today as well as the student of ten or twenty years back, will turn with pleasure to the familiar diagrams and the familiar arrangement and will appreciate keenly, the incorporation of the newer work in his favorite text-book of anatomy. In spite of the wealth of production, it is doubtful if any single volume will ever replace Gray's work in the estimate and affection of the medical student and physician. The press work, paper and typography are all that the publisher's imprint implies. The index which concludes the volume is unusually satisfactory.

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## Medical News

W. R. Scott, of Dayton, is ill.

T. N. B. Whiteleather, of Carrollton, is on the sick list.

Margaret Fulton, of Portsmouth, is recovering from grip.

Mabel Tibbott, of Toronto, O., is ill with an ulcerated jaw.

C. L. Morgan, of Alliance, has returned from a trip to Detroit.

J. H. Staughton, of Covington, Ky., has recently located in Middletown.

Dr Showman is confined to his home at North Baltimore with an attack of appendicitis.

H. W. Elson, of Athens, has returned from a trip to New York, where he delivered a lecture.

Secord H. Large, who has been in Europe for the past eight months, is back again in Cleveland.

B. R. LeRoy, who recently returned from the Panama canal zone, has been confined to his room with malarial fever, but is out again.

Walter M. Gaines has returned to Troy from Anderson, Ind., where he was called on account of the illness of his wife.

Dr Marquis and wife left with a party from Lisbon, recently, for a southern trip. They will not return until warm weather.

Dr and Mrs. D. G. Palmer will leave their home in Geneva soon, for a couple month's outing at Englewood, Florida.

Dr and Mrs. C. C. Booth have returned from Florida, where they have been for some time. They report a very enjoyable trip and both are in excellent health.

A. J. Hill, of Minerva, has sold property and practice to A. Thomas, of that place, and will locate in Canton, after taking a post-graduate course in eye and ear work, in New York and Philadelphia.

The Sandusky County Medical Society held a monthly meeting in Fremont, on March 2nd, and elected M. Stamm president to succeed the late Robert H. Rice.

The Iowa Medical Journal calls attention to the January number, which contains a complete and carefully corrected directory of Iowa physicians, with other interesting data.



The regular monthly meeting of the Miami County Medical Society was held Thursday afternoon, March 2nd, at the Piqua Club Rooms. A paper on "Disease of the Lungs," was read by W. N. Unkefer.

The Crawford County Medical Society held an interesting meeting at the Y. M. C. A. building, Friday evening, February 23. There was a good attendance and interesting addresses were given. After the business meeting an elaborate banquet was served.

The Lorain County Medical Society met at the Hospital on February 13, with quite a large attendance. Very able papers were read and discussed and arrangements completed for the annual banquet. The papers were as follows: Dr Hurd, "Diphtheria"; Dr Burley, "The Subjective and Objective Treatment of Iritis"; Dr Cameron, "Diphtheria".

The Belmont County Medical Society held its regular bi-monthly meeting at the Windsor Hotel, Bellaire, Wednesday afternoon, February 28. The program was as follows: Address of retiring president, John C. Archer; Medical Treatment of Appendicitis, president, Dexter W. Boone; Surgical Treatment of Appendicitis, Van W. Marsh; discussion opened by J. A. Hobson; Echoes from the Mayo Clinic, James O. Howells; volunteer papers.

The twenty-third regular session of the Lake County Medical Society was held at 8 p. m. Monday, February 5, in the Assembly Room of the Parmly Hotel, Painesville, O. The program was as follows: Clinical Cases; An Informal Account of the Progress in the Diagnosis and Treatment of Rectal Diseases, Thomas Charles Martin, of Cleveland; the selection of a representative with a paper, to be presented at the coming session of the State Association; the consideration of the Proposed Medical Legislation.

A meeting of the Canton Medical Society was held on March 2. The Paper of the evening was read by W. C. Steele, of New Berlin. His subject was "Haemoptysis". The paper caused considerable discussion. Reports of cases were made by Harry A. March and W. H. Weaver. At the next meeting an out of town doctor will speak on "Tuberculosis". For this meeting an invitation will be extended the general public. The meeting will be held in the Grand Opera House or the assembly room of the City Hall.

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The monthly session of the Hancock Medical society was called to order Thursday night, March 1st, at 8:30 o'clock in the council chamber by the president, E. G. Hersh, of McComb. The minutes of the last session were read and approved. Dr Don C. Hughes and Dr L. S. Woods, of Rawson, were first on the program for interesting papers, but were absent, hence the secretary called Dr. A. H. Linaweaver, the third named on the program. The doctor's paper on the subject "Urinology" was treated in a very able manner, showing a scientific and practical knowledge of the theme. The paper was said by some to be the best treatise on the subject that they had ever heard.

The discussion was made quite interesting by Drs Tritch, Beardsley and Firmin. In the discussion each gave his practical experience gained by scientific research and careful study.

Dr J. M. Firmin read a paper on "Ureanic Poisoning." This sub-

ject as well as the one preceding it, was excellent from every point of view. The discussion following was very interesting and many ideas were exchanged.

Dr J. V. Hartman read a paper on "Typhoid Fever." The discussion of this paper was quite lengthy.

Those engaged in discussion fever were Drs Hersh, Firmin, MacLachlan, Beardsley, Tritch and Linaweaver.

Just before the close of the session the names of Dr E. George, of Vanburen; and Dr R. B. Taylor, of Arcadia, were recommended to the society for admission as members. By a unanimous vote they were admitted.

The committee on entertainment reported that it had arranged to invite the Allen county society to attend the April meeting. They will be asked to arrive in the city early in the evening and attend a banquet that will be arranged in their honor by the local society.

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The second annual banquet of the medical profession of Lake County was held at the Parmly Hotel. The true spirit of fraternity seemed to prevail and the first was intellectual as well as physical.

The newly elected officers assumed their respective stations and all went well. At the banquet table were seated Dr Dudley P. Allen, of Cleveland, professor of theory and practice of surgery, and clinical surgery in Western Reserve University medical department; and Dr James A. Dixon, of Ashtabula, as guests of the society. The home members were: Drs House, Hawley, Sherman, Carmedy, Grauel and Merriman of Painesville; Drs Quayle, Good and Winans of Madison; Drs. Lowe and Ingersoll of Mentor; Dr Black of Perry; Dr Moore of Willoughby; Dr York of Fairport; and Dr Stork of Wickliffe.

After partaking of a sumptuous repast served in good style, the medics repaired to the assembly room and were immediately called to order by Dr Quayle, the newly elected president. The formal preliminaries were omitted and Dr Allen was introduced to make a half-hour talk on "Appendicitis".

In the absence of Dr Amidon, who was selected to lead the discussion of the surgical side of the question, Dr Dixon, of Ashtabula was called upon and responded in an able manner.

Dr House, leader of the medical side, was next called on and made a most excellent defense.

A general discussion followed, but the lateness of the hour prevented as full and free an expression as was desired. Dr Allen, in his reply to the various questions, handled each with no small degree of adroitness.

A rising vote of thanks was tendered Dr Allen for his visit and instructive presentation of the subject.

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The annual banquet of the Summit County Medical Society was given February 13th, at the Buchtel Hotel. The following officers were elected: Dr A. B. Walker, president; H. H. Jacobs, treasurer; J. H. Seiler, secretary. The presidents of the various county societies are the vice presidents. Mr. F. Clark Miller, of Massillon, consular, elected by the state.

The next meeting will be at Orville on the second Tuesday in August. State meeting will be held at Conton in May.

Those who were present at the banquet were: C. E. Ebricht, W. S. Chase, J. G. Grant, George J. Wagoner, R. C. Kendig, G. T. Rankin, J. H. Seiler, H. C. Theiss, E. L. Mather, G. W. Stauffer, J. M. Pumphery, D. L. Bowman, E. A. Montenyohl, B. L. Millikin, C. W. Millikin, E. W. Barton, H. H. Jacobs, W. W. Leonard, A. E. Foltz, C. S. Hiddleston, Walter R. Parker, C. E. Held, M. D. Stevenson, L. S. Wise, J. H. Weber, W. J. Emery, A. S. Underwood, C. T. Hill, J. N. Weller, M. V. Halter, S. Morgemoth, W. C. Stern, Armin Sickerman, James P. Boyd, A. Rowland H. V. Taggart, J. A. Hulse, C. E. Norris and A. F. Sippy, William Weygant, Beacon Journal, Carl Moore, Press of Akron.

Out-of-town guests were: B. F. Bebe, Cincinnati; H. B. Middleton, Cuyahoga Falls; Bert Rodenbaugh, Barberton; Walter G. Stern, Cleveland; Charles Aldrich, Cleveland; R. D. Gibson, Youngstown; B. R. Starr, Hudson; W. C. Steele, New Berlin; A. B. Walker, Canton; J. H. Tressel, Alliance; J. Warbuston, Tallmadge; A. H. Stall, Barberton; A. H. Bill, Cleveland, and H. I. Cozad, Cuyahoga Falls.

Dr. L. S. Ebricht acted as toastmaster, and toasts were given as follows: "The Doctor of Forty Years Ago," Dr. G. L. Starr, Hudson, O.; "The Modern Health Officer," Dr. Bert Rodenbaugh, Barberton, O.; "The Doctor and His Automobile," Dr. C. S. Hiddleston, Akron, O.; "Doctoring," Dr. L. R. C. Eberhard, Akron, O.; "Original Poem," Dr. A. E. Foltz.

Dr. Walter R. Parker, of the University of Michigan, gave a splendid address on the "Science of Seeing."

**WARREN TRIENNIAL PRIZE—MASSACHUSETTS GENERAL HOSPITAL.** The Warren Triennial Prize was founded by the late Dr. J. Mason Warren in memory of his father, and his will provides that the accumulated interest of the fund shall be awarded every three years to the best dissertation, considered worthy of a premium, on some subject in Physiology, Surgery, or Pathological Anatomy; the arbitrators being the Physicians and Surgeons of the Massachusetts General Hospital.

The subject for competition for the year 1907 is on Some Special Subject in Physiology, Surgery, or Pathology.

Dissertations must be legibly written, and must be suitably bound, so as to be easily handled. The name of the writer must be enclosed in a sealed envelope, on which must be written a motto corresponding with one on the accompanying dissertation.

Any clew given by the dissertation, or any action on the part of the writer which reveals his name before the award of the prize, will disqualify him from receiving the same.

The amount of the prize for the year 1907 will be \$500.

In case no dissertation is considered sufficiently meritorious, no award will be made. Dissertations will be received until April 14, 1907.

A high value will be placed on original work.

HERBERT B. HOWARD,  
*Resident Physician.*

Boston, February, 1906.



# The Cleveland Medical Journal

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No 4

## Pathology of Tuberculosis of the Kidney

BY H. J. WHITACRE, M. D., CINCINNATI, OHIO

It is a matter of much regret that I must first apologize to this Academy for appearing before you without a prepared paper. This has occurred through a misunderstanding as to the date of your meeting. Only 36 hours ago did I know that I was expected to appear tonight instead of the third week in February, one month later.

The pathology of tuberculosis of the kidney is a subject that has interested me very much however, and with the aid of specimens that I have from my collection I hope to be able to present the essential features of this disease. Our treatment of tuberculosis of the kidney has been much impeded by three gross errors in our conception of the pathology of this disease. *In the first place*, these cases have been studied pathologically on the autopsy table; after death as resulted from the lesion; or in cases in which the kidney lesion was a part of a general tuberculous process. *Secondly*, the unfortunate term urogenital tuberculosis has held full sway in our conceptions of this disease. This term implies a coincidental infection of these two tracts. *In the third place*, tuberculosis of the urinary tract when progressive has been looked on as an ascending affair, therefore an ineradicable disease.

Subsequent studies have disproven all of these early concepts and we now know that tuberculosis of the kidney can occur as a primary lesion, that it is confined to one kidney for a long time, and that it is a curable disease. Clinical experience has confirmed these pathological conclusions, since surgical operation for the removal of a tuberculous kidney has resulted in a permanent cure of such patients. Cases of general miliary tuberculosis and

cases of manifestly late complicating tuberculosis of the kidney with evident disease elsewhere, will form exceptions to these general statements.

*Pathogenesis:* This subdivision of our subject presents most interesting and practicable problems. Three avenues by which infection might reach the kidney are recognized. (1) Direct extension from surrounding organs by contiguity. (2) Extension upward from the bladder along the ureter, ascending infection. (3) Infection from the blood, hematogenous infection.

A direct extension from a tuberculous lesion in surrounding organs is probably of very rare occurrence. It has been abundantly demonstrated that the kidney may be surrounded by a tuberculous abscess, yet remain free from infection. I present a specimen from a case of Addison's disease in which the suprarenal body is extensively diseased, yet there is no evidence of even adhesion to the capsule of the kidney.

We may therefore practically exclude direct infection through contiguous organs from our discussion.

*Ascending infection* of the kidney from a lesion in a lower part of the tract has formed the pathologic basis of all reasoning in the past concerning this subject. It has been supposed that tuberculosis had its origin in the genitalia, extended thence to the bladder and up the lumen of the ureter to the kidney. This conception seems to have been theoretical, and one of impression rather than one based upon actual demonstration. All documentary evidence would seem to refute such a conception. First—Anatomic evidence argues against a reflux of urinary flow from the bladder into the ureter. Careful dissections show that the urethral opening is so constructed that under normal conditions a reflux of urine is not possible in any state of distention. Even under excessive hydrostatic pressure in the bladder, colored fluids cannot be made to flow into the ureter. Second—The physiologic function of the ureter seems to be to conduct the urine from the kidney to the bladder and *to prevent a reflux flow from the bladder to the ureter*. Third—Experimental work with infection of the bladder by germs, likewise argues against the extension of infection from the bladder to the ureter. The experiments of Baumgarten with the tubercle-bacillus are of especial interest. Baumgarten injected tubercle-bacilli into the urethra and was able to produce a local tuberculosis of the urethra and of the bladder, but in no instance of the ureter or of the kidney. Again he injected tubercle-

bacilli into the vas deferens, and was able to produce tuberculosis of the prostate but not of the testicle. He therefore reasoned that the germ in every instance floats with the stream and cannot work up stream. Fourth—Pathological and clinical evidence of ascending infection is lacking. The mere fact that the maximum tuberculous lesion is located in the bladder, does not imply that it started here. Again we have many pathological specimens which show a tuberculous process in the pelvis of the kidney extending half way down the ureter, yet no specimen is on record showing a primary tuberculosis of the bladder, which has worked half way up the ureter and has not yet reached the kidney. Kelly states that he has not seen a case of ascending renal infection, but that he has seen cases of bladder tuberculosis, both primary and secondary to general tuberculosis, all of which were unassociated with the kidney lesion. Again, primary tuberculous infection of the bladder must be looked upon as a very rare disease. Lastly—It is a frequent experience to find a tuberculosis of the kidney associated with a tuberculosis of the epididymis, with no trouble in the bladder. There are undoubtedly some exceptions to these statements regarding ascending infection. A tuberculous epididymis may involve the wall of the bladder or the ureter by contiguity, causing a rigidity or stricture of the ureter; then a tuberculous infection of the ureter and kidney will follow promptly. Sampson has proven conclusively that injury to the ureteral orifice, or stricture of the ureter will promptly result in an ascending infection.

Exceptionally we may have the tubercle-bacillus conducted from the bladder to the kidney, (a) through general circulation, (b) through arterial anastomosis, (c) through the blood-vessels of the ureter, (d) by continuity of tissue in the lumen.

This will bring us to a consideration of the third explanation of renal infection. An *hematogenous infection* of the kidney will furnish us with the most plausible explanation of primary and secondary renal tuberculosis, and I may state that this is at present the most widely accepted explanation. It is a well-known fact that tubercular foci occur with very great frequency in the respiratory and intestinal tract, and that germs may be cast off from such foci and float free in the blood stream. Such tubercle-bacilli lodge at a point of least resistance and cause a local lesion. Incidentally it may be mentioned that tubercle-bacilli may pass through an intact kidney and appear in the urine, thus presenting a possible point of error in diagnosis. The tubercle-bacilli may



therefore be found in the urine of a patient who does not suffer from a kidney lesion; this patient may be treated hygienically and medically for tuberculosis of the kidney and presumably recover from such lesion under this treatment.

When a tubercle bacillus finds a point of least resistance in the kidney, it lodges and typical tubercular tissue develops. The point in the kidney most prone to such infection seems to be the glomerulus; a point where nutritional disturbance occurs most frequently and where circulation is least active. The pyramidal portion seems likewise prone to primary infection.

The explanation of infection of the kidney as based upon diminished resistance would seem to be well exemplified by those cases in which tuberculosis has distinctly followed (1) trauma, (2) a pre-existing nephrolithiasis, (3) a pre-existing hydro- or pyo-nephrosis. When an infection has occurred, typical tuberculous tissue develops, caseous masses form, and these rupture at an early date into the pelvis of the kidney, thus discharging pus and tubercle-bacilli into the urinary tract.

*Morbid Anatomy:* Inasmuch as the discussion this evening pertains chiefly to the clinical side of tuberculosis of the kidney, I shall refrain from a lengthy discussion of the morbid changes which take place in this disease, and shall endeavor to impress the various points of importance by means of gross specimens from the Cincinnati Hospital Laboratory, which I have brought with me. Specimen I, illustrates a miliary tuberculosis of the kidney. Discrete miliary tubercles are scattered through the organ as they were through the remainder of the body. The tuberculosis in this kidney is therefore a part of a general miliary tuberculosis and the lesion is non-surgical. Specimen II, shows a single tuberculous nodule the size of an English walnut in the lower end of the kidney; the remainder of the kidney being normal. Specimen III, shows a unilateral tuberculosis of the very earliest stage. There is a very small circumscribed tuberculous mass in the apices of two or three pyramids; the remainder of the kidney appears to be fairly normal.

Specimens IV. and V. are samples of unilateral tuberculosis of the kidney of a more advanced type. The kidney is partly destroyed in one, largely in the other; a much more advanced lesion than in any of the preceding. Both of these kidneys were removed by Dr. Ransohoff with recovery of patient. Specimen VI. is a most interesting autopsy specimen, which would seem to

demonstrate conclusively the unilateral nature of tuberculosis of the kidney. This jar contains one-half of each kidney. One kidney is almost completely destroyed and practically consists of a thickened shell containing caseous nodules or cavities. The opposite kidney shows no tuberculous lesion. Specimen VII. is likewise an autopsy specimen removed from a patient upon whom I did a rapid preliminary perineal section for the drainage of a large tubercular abscess of the prostate. One kidney has been completely transformed into a huge sac of pure caseous material. There is no remnant of kidney structure except a thin membranous capsule. Specimen VIII. is the opposite kidney of this same patient and shows a number of caseous tuberculous masses in the pyramids. Specimen IX. shows a tuberculous process engrafted upon a very destructive pyonephrosis. Specimens X. and XI. present a typical picture of tuberculosis of the epididymis and testicle.

*Secondary pyogenic infection:* A tuberculous lesion in the kidney may develop and progress as a pure tuberculous process, or there may be added to it a pyogenic infection. Destructive changes progress rapidly after such mixed infection, and the clinical symptoms become greatly intensified. Israel has stated that 33% of cases of suppurative disease of the kidney are tuberculous in origin.

*Accessory Lesions:* A complete study of tuberculosis of the kidney must include a study of certain important, sometimes, almost predominant accessory lesions in the ureter, ureteral orifices, bladder, epididymis, and other organs. I can only refer briefly to these lesions. Inasmuch as urine laden with tubercle-bacilli is constantly flowing over the mucous membrane of the ureter and bladder, we would naturally expect an infection sooner or later. This infection may occur early or late, and the lesion may be slight or it may be so great in the bladder as to completely overshadow the kidney lesion. Infection of the ureteral orifice is so frequent and gives rise to such characteristic lesions that the clinician places great reliance upon the diagnostic value of the appearance of the ureteral opening. Secondary infection of the bladder has been estimated to occur in about 59% of cases.

*The Opposite Kidney:* It is a matter of the utmost importance from a practical standpoint to know about the opposite kidney. If the infection is hematogenous in origin there would seem to be every reason to believe that the kidneys would be sim-

ultaneously or consecutively infected from the blood, and that we should usually have a bilateral lesion. The preponderance of evidence is to the effect, however, that in a high percentage of cases the lesion is primarily unilateral, and unilateral for many months or even years. The opposite kidney may be secondarily involved as illustrated in one of my specimens, but as already stated this infection of the second kidney is probably hematogenous, and not the result of an infection which descends to the bladder from the diseased kidney, thence upward through the opposite ureter.

There are lesions other than tuberculous which may involve the opposite kidney. Among these are simple pyelitis, amyloid degeneration, chronic nephritis, etc. From a surgical point of view it is a matter of extreme importance for us to know exactly the functional value of the opposite kidney if we contemplate excision of the diseased organ. The discussion of functional value from a physiologic point of view will be ably discussed by Dr Lower, and I shall merely refer to the pathologic physiology of the opposite kidney.

Kelly has recently called attention to a very practical point, namely, that the one remaining kidney may be so much enlarged functionally that it may be mistaken for the diseased kidney, and mentions instances in which the one normal kidney was removed under these conditions.

*Clinical Course:* It seems to me wise to say just a word about the course of the tuberculous lesion which develops in the kidney. This lesion must now be looked upon as a progressive disease in the kidney, which has no tendency to heal spontaneously.

Permit me in closing to summarize the points made in my very hurried discussion of this subject, (1) primary tuberculosis in the kidney is a well demonstrated fact. (2) The infection of the kidney occurs through the blood. (3) Genital and kidney tuberculosis may occur simultaneously and consecutively from hematogenous infection, but ascending infection is not an important factor. (4) The lesion is unilateral in a sufficient number of cases to give us our first important finger-board to treatment. (5) The opposite kidney remains free from tuberculous infection for a long time. (6) The clinical course is toward progressive extension to other parts of the kidney and the body.



## Hyperemia as a Therapeutic Agent

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The production of hyperemia for therapeutic purposes has been used in a great variety of conditions, many, but not all of which will be considered in this paper. Its principal applications having been to conditions usually considered under orthopedic surgery, these will be most minutely reviewed, the others being less thoroughly studied.

As nearly as can be ascertained, the artificial production of hyperemia for therapeutic purposes was first recommended by Dumreicher in 1875. He used it in pseudarthrosis and claimed good results. Helferich also recommended its use in the same condition before the German Surgical Congress in 1887. Between 1880 and 1890 Hagedorn made use of hyperemia with seemingly good results in many cases in which there was an insufficient or retarded formation of callus. Bier has been the most enthusiastic worker in this field and first advised the use of hyperemia in the treatment of so-called surgical tuberculosis in 1892 before the German Surgical Congress. Since then he has investigated the subject most extensively, becoming so thoroughly convinced of the value of hyperemia that he recommends its production in practically all acute, subacute and chronic inflammatory conditions where it is possible of application. He has carefully worked out the technic and from his many writings on the subject and his wonderful success in the use of hyperemia, the method is now justly known as "Bier's treatment by hyperemia." Bier<sup>2</sup> is of the opinion that hot-air baths, hot-sand baths, hot-water baths, etc., all operate principally through the hyperemia produced and that these may be advantageously substituted by the artificial production of hyperemia. He believes that the surgeons, in trying to combat the hyperemia usually present in inflammatory conditions, have been on the wrong track and that an endeavor should be made to increase this hyperemia rather than to diminish it.

The most important applications of hyperemia have been to the cases of so-called surgical tuberculosis. Habs<sup>1</sup> in 1903 reported 300 cases of which about 200 were tubercular. A very large percentage of his cases of tuberculosis in the knee, hand, ankle and foot yielded readily to treatment of hyperemia. In many cases in which there was fluctuation and other signs of abscess in or about the joint, the fluctuating area first became hard

and then disappeared. In some cases, after an apparent improvement, patients became worse and failed to respond to treatment. Some of these cases went on to abscess formation but a good proportion of these yielded to iodoform injections and the further use of hyperemia. Habs reports only a small percentage of cures in cases of tuberculosis with fistulae and probable sequestrum, but Bier reports much more favorable results, often obtaining good subsequent motion. Bier obtains his best results in the treatment of tubercular affections located in the hand, elbow, foot and ankle; he also uses it in tuberculosis of the knee, obtaining as good or better results as are obtained by other methods of treatment. The cases which react most strongly to hyperemia heal most readily. In the consideration of the treatment of these cases by hyperemia we must not lose sight of the fact that several other methods of treatment have produced undoubted benefit and many cures. Bier is probably justified in his belief that few, if any, of these cases require iodoform injections or fixation, but his views meet with some opposition from surgeons who have found these measures useful in a large number of cases. However, there seems to be no doubt of the benefit derived from the general and especially the out-door treatment of these patients and these should not be neglected. That harm may result at times from the improper use of the bandage is unquestionable. Langemak<sup>3</sup> reports a case of tuberculosis of the *os naviculare* and *caput tali* cured absolutely in five days by hyperemia, but following the application there was complete anesthesia below the point at which the bandage had been applied.

Probably the second most important use of hyperemia is in gonorrhoeal arthritis. The treatment of this condition by other methods has been so notoriously unsatisfactory that a new and apparently successful method should be welcomed as a great advance. To illustrate its use in this condition, I shall quote the history of a case reported by Bier.<sup>4</sup>

A young man suffering from gonorrhea has had for the past 14 days pain and swelling in the knee. Examination reveals a spindle shaped swelling, skin edematous and smooth. Fluid could not be made out. The joint is extremely sensitive to pressure and any motion is out of the question. Treatment by hyperemia was at once begun. The bandage was very loosely applied, watched for a short time and patient was then directed to remove the bandage if he suffered severe pain. The next morning the knee was found to be swollen to an astonishing degree, was of a bluish-red color, hot to the touch and covered with several large

blisters. In spite of all this the patient was very well pleased. For the first time since the beginning of the attack he had slept well and had had only a little pain. In a few days the pain entirely disappeared and careful passive movements were begun. After eight days treatment hyperemia was discontinued. All swelling disappeared. Active and passive movements were then carried out until in a short time there was complete restoration of the normal motions of the joint.

In connection with this case I shall report a case resembling it in many respects.

Mr. S. aged 25, was referred to me November 17, 1905, on account of swelling and pain in right wrist. Married three months. Negative family and previous personal history as regards rheumatism or other joint disease. Six years ago patient had gonorrhoea from which he has never entirely recovered. Careful questioning brought out the fact that during the past few days there had been a profuse discharge, coinciding in time with the onset of the trouble in the right wrist. Patient drinks moderately, smokes excessively. Gives no clear history of injury to wrist.

The present trouble began on the night of November 15, two days previous to presentation for treatment. The wrist became stiff and painful. Since then he has had more or less pain and discomfort, the pain being of a throbbing character. He has slept well. At present no other joint is involved.

*Examination:* The patient is a well built and apparently healthy man. There is slight redness and swelling over the right carpus; some limitation of motion and pain on hyperextension; no pain on flexion. There is pain on pressure at two points over the lower ends of the ulna and radius. On motion there is slight crepitation over both wrists. No increase of local temperature can be made out. There is a profuse discharge from the urethra which on examination by Dr Foote showed gonococci, leucocytes, epithelial cells, etc.

*Diagnosis:* Dr Foote and I both considered the case one of gonorrhoeal arthritis but to make certain he was put on sodium salicylate and told to go to bed. Dr Foote gave him the usual treatment for his urethritis on this and each subsequent day he presented himself for treatment.

November 20, three days later. Condition was much worse. Patient had so much pain in the wrist during the night of November 18 that sleep was impossible and at four a. m. he went to a neighboring hospital where he was given two hypodermics of



morphia and slept until the afternoon of the same day when he returned to his home. Since then pain has been very severe. He had some pain in right knee and a very little in left. Has perspired freely and felt feverish. Appetite poor. Temperature  $99.4^{\circ}$  F, pulse 80, regular, rhythmic, good volume. Wrist showed marked increase in the swelling, redness, pain on motion and tenderness to pressure. There was some increase in local temperature. No visible swelling in knees and no fluid could be made out. One point of slight tenderness just inside of and below the right patella was found. There seemed to be no doubt now of the diagnosis of gonorrhoeal arthritis and treatment by hyperemia was begun. The constricting rubber bandage was applied just above the right elbow and right knee. It was allowed to remain  $1\frac{3}{4}$  hours, during which time there was some discomfort in the wrist but none in the knee. After the bandage was removed the patient said that he had much less pain and better use of the wrist. He was sent home and told to remain in bed.

November 21 the condition was much improved. He slept 13 hours and has had absolutely no pain in right wrist or knee but has had some pain in left knee. His appetite was good and he wished to return to work. Temperature  $99^{\circ}$ , pulse 70. There was much less swelling in wrist, no redness or increase of local temperature; the wrist was slightly painful to pressure but there was no pain on motion. Both knees were slightly swollen, the left more than the right; there was no redness, heat or tenderness. Floating patella on both sides; seemingly more fluid in left knee joint. Hyperemia was applied to both knees and right wrist; it caused no pain or discomfort and was continued one hour.

November 22 the patient was much improved and insisted upon going to work. He had absolutely no pain, but complained of slight stiffness in both knees. All that remained of the trouble at the wrist was a very little swelling and slight redness. There was still some hydrarthrosis in both knees, slightly more in left. No tenderness, redness or pain on motion or pressure. Treatment—Hyperemia to right arm and both knees, continued  $1\frac{1}{2}$  hours.

Patient went to work the following day and has been lost sight of since.

It seems almost inconceivable that hyperemia continued for such a short space of time could have produced such a marked improvement as in this case, but any other explanation of this improvement seems insufficient. Naturally such rapid results as

were obtained in these two cases can not be expected where deep-seated anatomical and pathological changes have taken place. From this it may be deduced that the earlier the beginning of treatment the better will be the result. After the pain has disappeared, usually the second to third day, careful passive and active movements may be begun and the hyperemia discontinued. The edema usually produced by the hyperemia soon disappears. Treatment by this method often prevents a stiff joint.

Hyperemia is exceedingly useful in the treatment of chronic articular rheumatism. The pain often present in these cases is usually quickly relieved. One of my patients insisted upon wearing the bandage continually because it so completely relieved him of pain. Often a practically immovable joint may be made movable in two to three days treatment.<sup>2</sup>

It is often beneficial in cases of acute articular rheumatism but here we have to contend with a more or less general systemic infection for which general medication, as with salicylates, is indicated. In using constriction in acute articular rheumatism it should produce a very marked hyperemia with redness, heat and at times the formation of blisters.

In arthritis deformans an improvement in the pain and usefulness of the joints can usually be obtained.

Blecher<sup>1</sup> in 1901 recommended hyperemia in the treatment of stiff joints explaining its action by the edema produced. Habs has also obtained good results in the treatment of stiff joints by the use of hyperemia in conjunction with massage and passive movements. Of course it is not to be attempted in cases of bony ankylosis.

Hoffa<sup>5</sup> states that the use of hyperemia may increase the length of a limb in many cases of paralysis.

If very carefully used hyperemia is of marked benefit in cases of acute osteomyelitis, particularly in the early stages. The rapidity of its action, even in cases of long standing and in the presence of large abscesses, is remarkable. Bier<sup>6</sup> treats and cures many of these cases without operation but as a routine he recommends puncture or several small incisions with the subsequent treatment by hyperemia. In this way he is able to obtain much more rapid results with much smaller scars. Acute infectious arthritis with the presence of pus, containing staphylococcus, streptococcus, etc., is treated in about the same way and good subsequent motion obtained in practically all cases. Bier reports many cases of acute arthritis with redness, heat, extreme pain,

fixation, swelling from two to seven c. m. over the healthy side, pus containing streptococci obtained by aspiration, in which there was absolute cure with complete return of motion in from six to 12 days. He believes that the so-called antiphlogistic treatment of acute inflammatory conditions in the joints often leads to a chronic condition and to stiffness. Of course if these cases do not improve rapidly under treatment by hyperemia he advises puncture or incision with the subsequent use of hyperemia. Drainage should be avoided if possible. If the joints are opened he advises early passive motion to facilitate drainage.

Acute, subacute and chronic teno-synovitis also yield very readily to this treatment. A case of chronic teno-synovitis at the ankle of five months duration very recently referred to me received very marked benefit after the first treatment and was discharged cured at the end of four days. In the acute stages hyperemia must be used with great care but should always be tried as many of these cases may be cured without operation. If marked improvement does not follow in a very short time several small incisions should be made and the wounds simply covered with sterile gauze, no drainage being used. Hyperemia should then be continued. The advantages of this method are the usual perfect restoration of motion and healing with practically no scar.

The technic of the application of the constricting bandage for the artificial production of hyperemia is simple and yet much practice is necessary in order to obtain the desired amount and degree of hyperemia and the exact dosage for each individual patient must be left largely to the judgement of the operator. Upon these factors depends the success or failure of this method of treatment in appropriate cases.

The most satisfactory method of applying the constriction is by means of a rubber bandage. This should be smoothly applied some distance above the diseased part and should be allowed to remain from two to 22 hours out of every 24, according to the nature of the case. In acute conditions it should be left much longer than in chronic. If there seems to be any danger from pressure of the bandage a gauze bandage may be smoothly applied under the rubber bandage. If possible a different position should be selected each day. In treatment of the knee or elbow the limb below the joint may be firmly bandaged, thus confining the hyperemia to the part affected. During the treatment the part should be bluish-red and warm and the pulsations in any artery below the part should not be affected. The application of hyper-



emia should never cause pain and should diminish it if present; if the bandage causes pain it is too firmly applied, producing then a dark blue appearance, coldness of the part, and is not only ineffectual but often harmful as has been shown clinically and experimentally. At the same time the bandage must be sufficiently tight to produce a marked hyperemia and usually considerable edema. During the first and second treatments the patient must be kept under personal observation and to this end the bandage may be applied at the beginning of office hours and removed at the end. The patient very quickly learns the technic and may be trusted to apply the bandage himself, being instructed as to the length of time during which the bandage should be allowed to remain, the direction as to pain, the ability to feel the pulsation of the artery below, the warmth of the part, etc. If possible the patient should appear daily for observation and other treatment. In acute cases the patient should be kept in bed and carefully watched; if severe pain appears after the application of the bandage or if the part is dark blue in color or cold the bandage should be loosened or removed.

In attempting to determine the cause of the beneficial action of hyperemia in the above mentioned conditions several factors must be taken into consideration. Probably the most important of these are the increased number of leucocytes and the concentration of alexins or other antitoxic substances in the part affected. Noetzel<sup>7</sup> found in experiments with six rabbits that in one to two c. c. of serum removed from the carotid blood and inoculated with a definite amount of bouillon culture of anthrax bacilli, in one, two, and six hours, there were from two to 30 times as many colonies as were found in a like amount of serum removed from the hyperemic area and similarly treated. He also found that if the constriction has been too tight the serum removed from the hyperemic part is a better culture medium than that obtained from the carotid blood. It was found that if a considerable quantity of tuberculous material was introduced under the skin of a guinea pig's toe and the part treated by hyperemia infection failed to take place. Quite extensive experiments were also carried out upon rabbits with the following results summarized from Noetzel's table. Fifty-four full-grown rabbits were used. After the artificial production of hyperemia for from 15 minutes to 24 hours, from 50 to 2,000,000 anthrax bacilli were injected or implanted (the wound in this latter case being sealed) into the subcutaneous tissue of the ear or hind-leg. The hyperemia was continued for

from two to five days. Forty rabbits remained healthy, 16 died of anthrax on the third to the seventh day. Streptococci were used in practically the same way in 13 rabbits, two of which died on the fourth and seventh days, 11 remaining healthy. After 28 to 36 days all of the animals were re-inoculated without the use of hyperemia and all died within two and one half to five days from anthrax or streptococcus infection. After four days, in rabbits which recovered after inoculation of anthrax bacilli and treated by hyperemia no bacilli could be found microscopically or on culture. Even after 24 hours it was frequently very difficult to find bacilli.

In view of these experimental results it is not so surprising to hear of the rapid clinical results following the use of this method of treatment.

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## Report of a Case of Puerperal Tetanus

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The following report of a case of puerperal tetanus may be of interest not only on account of the great infrequency of the disease, but also on account of the numerous complications which were successfully combated during the puerperium.

It has been estimated that puerperal tetanus occurs about once in 200,000 cases. It is much more frequent in abortions, especially the criminal variety. It is an interesting fact that there have been epidemics in hospitals, particularly in the Prague lying-in hospital where, at one time, conditions became so serious that a complete rebuilding was necessary to stamp out the disease. Within a comparatively recent period three cases occurred in this hospital, and in one of the cases no vaginal examination had been made.

Mrs. L., age 38, married six years, had been a semi-invalid

since 13 years of age, when she had a very severe attack of acute rheumatism of several weeks duration, complicated with endocarditis resulting in a mitral insufficiency. She was subsequently subject to frequent recurrences of the rheumatism, together with failure of compensation. For several years prior to her pregnancy, however, she had enjoyed fairly good health.

She passed through a normal pregnancy, being unusually free from the usual symptoms incident to the condition. Toward the latter part of pregnancy, a slight amount of albumen appeared in the urine, which produced no symptoms other than a slight edema of the lower extremities. Two weeks before labor she had false pains several nights in succession, with a slight show and some discharge of watery fluid, but the cervix was not affected. The heart acted well throughout. She fell into labor early in the morning of February 20, 1905. At 9 a. m. the pains were good and regular, the os was dilated to the size of a quarter, and the head was engaged in first position. At 1 p. m. the os was one-half dilated, the head had descended well, but the heart began to show the effects of the strain. Inhalations of amyl nitrate relieved the condition somewhat, but at 4 p. m. it was thought advisable to terminate the labor instrumentally. At this time the os was three-quarters dilated, the head has descended well and the membranes were unruptured. The patient was etherized, the membranes were ruptured and os completely dilated manually. The forceps were applied in mid position, adapted to the side of the child's head and a living male child, six and one-half pounds in weight, was delivered in about three quarters of an hour. A slight laceration in the center of the perineum occurred, requiring but two stitches for its repair. The placenta was easily expressed in 15 minutes and the patient was put to bed in an excellent condition, the heart being stronger than at any time during labor.

The entire labor was conducted with the utmost regard for asepsis in every detail. But two examinations were made previous to the operation, and each time the hands were protected with rubber gloves boiled for 15 minutes before use. The examination was made according to Edgar's technique. Gloves were also worn during the forceps operation. The hands, of course, were thoroughly scrubbed for 10 minutes with Synol soap, and then immersed in Lysol solution for three minutes before putting on the gloves.

About one and one-half hours after the completion of labor, a considerable post-partum hemorrhage occurred, which was



quickly controlled by massage of the uterus through the abdominal wall. Although the hemorrhage was not extreme and although a mild degree of post-partum hemorrhage is thought to be of advantage in relieving a diseased heart from the strain thrown upon it by the contracted uterus, the patient's life was at once put in jeopardy, and for four hours heroic measures were necessary to tide the weakened heart over the crisis. Hypodermics of camphor in ether and inhalations of oxygen seemed the most efficacious measures for stimulating the heart. After a few days the patient seemed to have entirely recovered from the effects of the hemorrhage. On the eighth day a rise of temperature to  $102^{\circ}$  occurred. The temperature previously had been normal. The uterus was promptly irrigated. The perineum was found to have healed perfectly, but a slight laceration of the cervix was present, the granulations being covered with a slight greyish deposit, which was removed with tincture of iodine. The temperature subsided at once, but subinvolution of the uterus persisted. As no cause could be found locally, the condition was thought to depend on circulatory disturbances. This opinion was arrived at as a result of consultation with two prominent physicians, a gynecologist and an internist. For a few days, the patient's condition seemed much improved, but on the beginning of the third week of the puerperium, a slight attack of rheumatism occurred, the joints being slightly affected, the pain being chiefly centered above the thorax, and particularly in the spine. Aspirin internally and mesotan externally. (Mesotan one part, Oil three parts), gave considerable relief.

On the evening of the 19th day, a slight stiffness of the jaws was complained of, which was thought to be due to rheumatism affecting the joints. There was no trismus and the patient could swallow fluids without trouble. She passed a comfortable night, but in the morning the jaws were locked and there was considerable pain in the joints and in the back of the neck. Nourishment was refused. Until 11:30 we were unable to make a positive diagnosis. At that time the patient was induced to take a little milk into the mouth and at once spasm of the throat and respiratory muscles occurred, producing a most agonizing appearance of suffocation. There was no longer doubt of the true condition and 10 c. c. of antitetanic serum was injected subcutaneously. At this time the temperature was  $99.6^{\circ}$  in the axilla, pulse 130, respiration 40. Morphine sulphate ( $\frac{1}{8}$  grain) was given which produced a quiet sleep. At 12:45 another dose of serum of 10 c. c.

was given. At this time the pulse was 140, respiration, 50. At 2 p. m. another dose of serum was given. At this time the pulse was 150, temperature  $102^{\circ}$ , respiration 46. Two drachms of bromidia were given per rectum. At 2:15 a slight spasm similar to the previous attack occurred. At 2:45 a fourth dose of 10 c. c. of serum was given. Meanwhile Dr Allen saw the patient and confirmed the diagnosis. He suggested an intra-spinal injection of serum, which Dr Sanford gave at 4:30 p. m. The convulsions were becoming more severe and frequent, but were confined to the neck and chest muscles. At 6 p. m. she became unconscious and pulseless following a convulsion, and artificial respiration was resorted to. At 7:30 p. m. a general convulsion occurred and death speedily ended the most tragic occurrence it has been my misfortune to witness. Previous to the last convulsion the pulse was 160, respiration 40.

Whatever hypothesis one may form to account for the source of infection in this case, it must rest on pure conjecture. In the barnyard, some 30 feet from the house were kept two horses, a cow and about 75 chickens, and on the lawn about the house manure had been recently spread. There was more or less communication between the barn and the house. These are conditions, however, frequently met with, especially in the country, with no evil results. The relation between cause and effect is certainly not apparent.

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## Quotations from the Oculists' Report of the London County Council

(SELECTED FROM THE REPORT OF THE MEDICAL OFFICER OF THE BOARD OF EDUCATION—EDUCATION COMMITTEE)

BY LEIGH K. BAKER, M. D., CLEVELAND, O.

That wide awake municipal body, the London County Council, publishes an annual report of its education committee dealing with school hygiene questions in that city and sends it to school sanitarians throughout the world. Their latest report contains 60 pages filled with interesting matter.

Eight pages are devoted to vision. It seems that in 1900 London teachers began testing the visual acuity of children for distance and reading.

In 1902 eight ophthalmic surgeons were appointed "School Oculists." These tested the children—"as regards visual acuity,

and filled in a card for each child, giving its name, age, sex, grade, school, and visual acuity, right and left eyes alone, and also both together." Concerning the first year's work of these eye doctors it may be said that they examined 61,676 children. Of these they report 46,503 children as having good visual acuity, 9,454 as having fair and 5,719 as having poor visual acuity. Briefly, 33% were not up to standard.

During last year the oculists advised the parents of 18,536 of the 27,933 reported defective by teachers, upon cards used for that purpose.

"The preponderance of very bad vision (6/60 or worse) among the girls is marked. It is generally almost entirely due to spasm of the accommodation in these cases. It was also shown that there is an association between defective visual acuity and retarded position in the school, the group of children who are older than the average age of their standing presenting a considerable excess of visual defect when compared with the younger group."

"The percentage with normal vision increases with every year of age and standard (grade), from the First reaching 80 per cent., in Standard (grade) VII."

"The greater part of the defective vision is due to slight defect, which gives imperfect but fair vision, due probably to both mental and ocular conditions, and of the greatest importance educationally in the first half of school life."

"Parents refuse to lose work, a half a day or more, for a hospital visit, and each case requires two or even three visits. A considerable proportion of the hospital work is thrown away by the patients refusing to spend the money for necessary glasses. Apart from hospitals, there is a want of provision for the treatment of defective vision. The field has been much exploited by quacks, "qualified opticians" and others but the need of a means of obtaining such help at a lower fee than the ophthalmic surgeon's two guineas is shown by the fact that of the class from which candidates are drawn for employment, under the Council (teachers, clerks, etc.), who were referred back for defective visual acuity, 80% went to hospitals for advice."

"Since January, 1904 the Oculists have reported on many general school matters.

They have repeatedly called attention to the prevalence of near eye-working distance in school. This is the worst of school



habits, and lies at the base of educational hygiene; it will be referred to in considering school work."

"It is commonly supposed that almost every child with defective acuity requires glasses, but there could be no greater mistake; some can get no improvement from glasses, some will do better without glasses, a very small number are found with defective visual acuity and no refractive error, and in the course of one or two years ultimately attain normal vision. Viewed from a wide public health point of view, it ought not to be necessary for a considerable percentage of children to wear glasses. The rational treatment of most of these children should be an educational modification which avoids the necessity of glasses."

"There is a considerable number of children with permanently damaged or diseased conditions who are not blind, and not ever likely to benefit by the training as given in blind schools, who may be actually harmed by the ordinary school education \* \* \* \* \* This group is probably as large a group in totality as that of the blind, and, from the results to be obtained, much more worth education. \* \* \* \* \* Special schools, with modified tasks, are required for these children. The literary element being as far as possible eliminated from their work, and special attention given to fit them for tasks in which vision is not chiefly involved, but yet of subsidiary use."

Notes. Essentially similar conditions were found in the Cleveland schools as well as in the schools of other American cities.

It appears that the teachers examined the children first, using the test letters, for instance. Those reported defective by the teachers were then examined by the oculists. Experience elsewhere suggests that had oculists made the original examination, using the ophthalmoscope, a considerably larger per cent of children with pronounced hyperopia would have been discovered.

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### Medical Teaching in Ohio

There has recently been organized the Ohio Association of Medical Teachers, consisting of active and associate members, the former comprising the professors in the medical schools of the State, together with the members of the State Board of Medical Registration and Examination, and the latter including the teachers of chemistry and the biological sciences in the literary

colleges. We learn that about fifty persons eligible to membership were present at the time of the organization, and that most of them joined the association then. On the very day of its formation, December 26th, the new organization proceeded to the consideration of weighty matters. The medical curriculum was the subject of papers by Dr C. C. Howard, of Starling Medical College, who dealt with the first two years of the course, and by Dr J. C. Oliver, of Miami Medical College, who spoke of the second two years. The other papers were on the general subject of the relations of the literary and medical colleges, especially on the advanced standing in a medical school that might properly be allowed in consideration of the student's having pursued the study of chemistry and biology in a literary college. They were presented by Dr R. P. Daniells, of Toledo Medical College; Dr A. Ravogli, of the Medical College of Ohio; Dr G. M. Waters, of Ohio Medical University; Dr F. C. Clark, of Starling Medical College, and Dr F. C. Waite, of the Medical Department of the Western Reserve University.

In the evening there was a joint session with the Ohio College Association, and the papers then presented turned upon the same question of advanced standing, a question that was undoubtedly rendered more than usually prominent by the fact that the State Board of Medical Registration and Examination had passed this resolution: "That, after 1905, advanced standing which has been given for A. B. and B. S. degrees be not recognized by this board unless the candidate to whom it has been given has, during the academic course, done the science work comprised in the first year of the medical course." There can be no doubt, we think, that the stand taken by the board in the resolution is perfectly correct, and it was fortunate that in the joint session a member of the board, Dr E. J. Wilson, presented a paper upon the question of what scientific work in the literary course would be held by the board as satisfying the requirements of the resolution. It is highly desirable of course that the scientific work done in the academic colleges of the State should be practically uniform, and that it should satisfy the board's requirements for advanced standing in the medical schools. Such a result, it seems to us, can hardly fail to occur after so well planned a procedure as the organization of the Ohio Association of Medical Teachers and its joint session with the Ohio College Association. In other respects, too, much good must come from the movement.—*New York Medical Journal*.

# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
THE CLEVELAND JOURNAL OF MEDICINE

MONTHLY

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## EDITORIAL

### The Blind Spot and Sympathetic Inflammation

In the Ophthalmic Review for January 1906 is an article by Ramsay and Sutherland upon spindle shaped enlargement of the blind spot associated with congestion of the optic disk in patients suffering from sympathetic irritation or threatened sympathetic inflammation of the eye. Five cases are reported, four of them injuries and the fifth a case of phthisis bulbi. All were complaining in some respect of their good eye. While none of them showed symptoms of actual sympathetic inflammation, the optic nerve was hyperemic or congested in each and the field of vision taken with Bjerrum's screen instead of the ordinary perimeter showed a spindle shaped enlargement in the vertical direction of the normal blind spot. After enucleation the subjective symptoms disappeared and the blind spot regained its normal size.

"It seems highly probable" says the writer, "if not almost certain that the spindle like enlargement of the blind spot denotes active congestion of the optic disk," and it is often difficult when there is no healthy fundus for comparison to determine whether the apparent congestion of the optic disk is pathologic or not. "It seems highly probable" he thinks, "that under certain circumstances the spindle shaped enlargement of the blind spot may



furnish an important and valuable danger signal of the approach of sympathetic inflammation." Should further investigation prove the correctness of his observations the value of this fact will be readily appreciated. Patients frequently do not wish to give up an injured even though blind eye unless absolutely necessary, and the physician while wishing to recognize this desire on the part of the patient does not want him to take any unnecessary risk. It is unsafe to delay until symptoms of sympathetic inflammation appears for then even though the exciting eye be removed, the process may go on in the other eye to serious permanent impairment of vision or even blindness, and sympathetic irritation unfortunately does not always precede sympathetic inflammation. Consequently any symptom which serves as a warning of danger especially if that symptom is found to be fairly constant, becomes very important as a guide to treatment.

It does not appear that the ophthalmoscope was used by the school oculists in these examinations.

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### The Christian Science Amendment

In the March number of the Journal we publish an editorial taken from the *Catholic Universe*, dealing with an effort on the part of the Christian Scientists to secure recognition "in effect" by our State laws. Owing to the unfortunate delay of the appearance of the Journal, unavoidable on our part, this editorial appeared after the final settlement of the matter by the Legislature, fortunately in a way favorable to the interests of the profession and public health. This editorial was, however, so timely and presented so ably the crux of the matter that we published it in spite of the fact that the cause had been won.

In connection with this most important matter, we beg leave to call the attention of our readers to the resolutions adopted at the monthly meeting of the Academy of Medicine in open session, March 16. It is a curious but patent fact that often those individuals whose judgment is supposed, by all those competent to judge, to be so sound as to constitute them responsible authorities for the public welfare, frequently show a lamentable lack of appreciation of the logic of the situation;—as illustrated by the recent support of the Christian Scientist Amendment. Whatever else may be said in behalf of those individuals who urged the passage of this amendment, the resolution referred to above has ably summarized their ability to judge with any sane balance in matters concerning public health.

## House Bill Number 42

The profession of Ohio are to be congratulated upon the passage under the official title of "House Bill Number 42" of the provision in our Medical Practice Act for reciprocity of licensure between states. We publish elsewhere, page 150, the resolution adopted at the March meeting of the Academy of Medicine, expressing the sense of obligation of the Academy to representative Stockwell and his colleagues for their interest in the behalf of the profession in securing this enactment. To representative John N. Stockwell, as well as Senators Espy, Dunman and West, our appreciative thanks are due for their services so zealously rendered. It behooves the profession of the City and the State to remember well those of our Legislators who have rendered us a distinct service, and never to forget the names of those in whose hands our affairs are placed in jeopardy.

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## The Proper Source of Relief for the Indigent Sick

The communication from the Associated Charities, to which we are very glad to give space in another column,—page 151—will, we are sure, be found very suggestive and helpful. Fully aware of the fact that their sick poor need intelligent and discriminating aid physicians are often uncertain as to the best agency to which to turn for such assistance.

It may not be generally known by the profession how great is the assistance rendered directly by this agency. The more we have learned of its work the more highly do we estimate its usefulness in the community. To direct the needy whether sick or well to it for assistance will be not alone a great gain for the individuals so referred, but for organized charity as well.

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## Canton

Famous as the home and resting place of all that is mortal of the beloved McKinley, is a city estimated at 45,000 population lying in the eastern part of Ohio, 100 miles west of Pittsburg and 60 miles south from Cleveland. It is the County Seat of Stark County with one of the finest Court buildings in the State. Canton is a manufacturing city, its 246 different factories, with a combined capital of 21 millions, produce over 5000 specific articles for the markets of the world.

Her 32 churches represent all denominations and her moral

status is above the average for a city of its size. The educational advantages are very good, there being 18 school buildings ranging in size from eight to 24 rooms and built at a cost of \$452,000, there are 6280 pupils enrolled and 164 teachers employed and the maintenance costs \$140,000 annually. Two new school buildings are in the course of construction in the suburbs. Canton is also the seat of the Bible Institute and Canton College.

The New Municipal Auditorium and Convention Hall stands in a class by itself and has been acknowledged by distinguished speakers to be one of the finest buildings of its kind in this Country with acoustic properties second to none. Its erection cost \$180,000 and it has a seating capacity of 4280. It covers an entire city block and affords ample space for committee rooms and exhibition halls. Here all the sessions of the State Medical Meeting will be held.

The Aultman Memorial Hospital has a staff of 25 nurses, a matron and a visiting staff of 21 physicians, who are controlled by a Board of Trustees of nine members. It is partially supported by endowment. The High School Building, Public Library, City Hall, Government Building and public parks would be a credit to a city twice its size. There are morning and evening newspapers, two semiweekly and four weekly papers besides a monthly magazine.

The main line of the Pennsylvania Railroad, Baltimore, Ohio and Wabash systems pass through Canton giving her good shipping facilities and ability to be easily reached from the more distant parts of the State. Two electric interurban lines connect all parts of the country. During the winter months lecture courses and concerts of the highest order are maintained for the entertainment of the people and many of the masters have been heard in them.

Meyers Lake which is situated about two miles from the center of the city is a beautiful body of water about one mile long and one-half mile in breadth, surrounded by lovely promenades, groves, etc., and attracts many people from different parts of the state. Bath houses, hotel, theater, base ball and tennis grounds are located here.

Canton has the best water supply system in this country. The water is obtained from artesian wells and the product is far above the average. The sewerage system is very good and the healthfulness of the City is universally conceded, as Canton ranks second, from a health point of view, of all cities in the



United States, being exceeded only by St. Joseph, Missouri. Her 12 hotels compare with those of large cities and are said by critics to equal any between Pittsburg and Chicago. The main ones are the McKinley, Barnet, Courtland and St. Edward. The Courtland is to be the headquarters during the Canton Meeting and the annual banquet will also take place at this hostelry.

Westlawn Cemetery contains all that is mortal of the late President Wm McKinley. Here his body is guarded night and day by a detachment of United States regular infantry and here he will be laid beneath a pile of granite given by a loving people to a loving Ruler.

The oration in medicine will be delivered by John C. Harmetter, of Baltimore, Maryland, upon "Intestinal Auto Intoxication," while that in surgery will be given by Harvey E. Gaylord, of Buffalo, on the subject of "Research in Cancer." All indications point toward the most successful meeting in the history of the Ohio State Medical Association. Lend your presence by attending and participating in its discussions and reunions with former college fellows.

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## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

### Cerebrospinal

**Meningitis:** The *New York Medical Journal*, for February 17, consists, as there is no specific antidote to the disease or germ, in diminishing the congestion, if possible, taking means to relieve cerebral or spinal pressure, if possible, and combating all acute symptoms and complications as they occur. Diphtheria antitoxin in cerebrospinal meningitis is theoretically unsound and practically a failure, if the large number of careful observations are considered authentic. Spinal puncture has been proved not to be a curative procedure. It seems also not to ameliorate acute symptoms sufficiently often to make it a procedure always to be followed, and there is also some slight danger connected with it. It is, however, positively indicated when there is cerebral pressure. The sore throat should be treated with antiseptic gargles and sprays, none better than the hydrogen peroxid solution. A calomel or saline purge should be given at the outset, painful joints a frequent beginning symptom should be wrapped with cotton and kept warm, and pain generally the most early symptom should be stopped with morphin by the mouth or hypodermatically, depending upon its intensity. If there is vomiting or repugnance to food, the patient is better without it for a few days, but he should have plenty of water to drink if he cares for it. If the pain is not severe, and there is no vomiting and a good pulse, the bromids or chloral may be given, but only for a few days. He believes the coal tar products should not be used, as they are too depressant and

debilitating and act badly on the blood. To quiet cerebral excitement and delirium, and also pain, and to diminish the necessity for large doses of morphin, he believes there is nothing in the *materia medica* that will compare with ergot. It contracts the blood-vessels and is of course indicated in cardiac weakness, or with soft pulse and dilated arteries, but it also has a decided sedative action on the central nervous system, as it seems to contract, and relieve congestion in the cerebral and spinal vessels. A patient who cannot sleep even with large doses of morphin will generally be found to sleep well after a dose of ergot has been added. When the best action of ergot is needed it must be given subcutaneously, and a pure aseptic fluid extract must be used. He prefers the deltoid as the site of injection, and the frequency depends of course upon the symptoms. He has given them every three hours, but thinks the average should be about once in six hours unless there is great cerebral excitement or the pulse is very bad. A high pulse tension or greatly slowed heart, indicate too much ergot. He believes ice, ergot and morphin will save and has saved many in this disease.

### Acetanilid

**Poisoning:** In the *Journal A. M. A.* for February 3, James B. Herrick and E. E. Irons, state that the literature abounds in reports of acute toxic symptoms after acetanilid. While these acute dangers attending the use of acetanilid are recognized, it is not so well known that the long-continued use of acetanilid as attended by fairly definite poisonous effects, and that idiosyncrasies exist analogous to those seen in acute poisonings, some individuals being unable to tolerate an oft-repeated dose of the drug that is easily borne by another. Chronic poisoning may escape detection because the symptoms in some instances are not pronounced, and they call attention to the clinical features attending the chronic use of the drug, and report a case of chronic poisoning by acetanilid, the drug being absorbed from an ulcer of the leg, the case in this respect being unique. The almost constant manifestations of chronic acetanilid poisoning are, (1) cyanosis that may be extreme, (2) more or less dyspnea and general weakness, (3) dark-colored urine that contains paramidophenol and an increased amount of the ethereal sulphates. Anemia is generally present, dizziness, syncopal attacks, tinnitus and palpitation may be pronounced when the anemia is advanced. The spleen is often enlarged, and anorexia, nausea, vomiting and diarrhoea may occur. The treatment of this drug habit is comparatively simple. By gradual withdrawal of the acetanilid, temporary substitution of codein for pains or sleeplessness, and the use of tonics, recovery will commonly ensue. Attention to the stomach and bowels is important and as the habit has not the hold that morphin or cocain acquires on its victims it is therefore more easily broken off, and it is remarkable how rapidly they improve when the use of the drug is stopped.

### Pneumonia:

Henry R. Loomis, in the *Therapeutic Gazette*, for February, believes that the treatment of pneumonia at the present day is the least satisfactory of that of any of the acute diseases, and presents the treatment of the disease in four of the large New York Hospitals. When cough is a distressing symptom, all

the hospitals give codein. Ordinarily it is the only drug they use, and when commenced it is given the regular doses of  $\frac{1}{4}$  of a grain every four hours. Heroin in  $\frac{1}{12}$  grain doses is also used at times and morphin is occasionally employed. For insomnia which is often a distressing symptom, the three drugs most used are trional ten grains, veronal ten grains, codein  $\frac{1}{4}$  of a grain. For pulmonary edema 15 to 50 minims of one in a thousand solution of adrenalin is given hypodermically every 15 minutes for five doses, then every half hour for four doses. Atropin is also used in  $\frac{1}{100}$  grain doses hypodermically. Oxygen is not given as much as formerly in any of the hospitals, and is only used in cases of dyspnea and cyanosis. The three cardiac stimulants used in all the hospitals are alcohol, strychnin and digitalis. The cardiac stimulant which occupies first place and upon which the greatest reliance is placed is alcohol. Whisky is the form used, in doses of half an ounce, the time of its administration varying from every hour to every four hours, according to indications. These indications are a small, incompressible, rapid, feeble and often irregular pulse, associated with the absence of the first sound, and a diminution in the apex beat. Most of us can remember when we began the practice of medicine that strychnin was seldom if ever given as a cardiac stimulant in pneumonia, now it is universally used. Clinical experience has confirmed what physiological experimentation has long ago proven, it whips up the heart one might say from its powerful nerve center. Strychnin is never followed by the secondary depression so often seen after alcohol. He finds this drug universally used in the hospitals and the two indications which call for its use are, (1) when whisky is not able to hold the heart they always use it; however, secondary to whisky,—to reinforce it, as it were: (2) When there is evidence of pulmonary edema and cyanosis; here it is generally given hypodermically in  $\frac{1}{20}$  grain doses. At two hospitals this second symptom is the special indication for its use. All alcoholic cases were especially found to respond to the action of this drug! Digitalis is not very extensively used, and nitroglycerin only very occasionally. He makes three statements as to the treatment of pneumonia, which clinical experience warrants him in considering of some value. First, a plea for the more general use of morphin hypodermically in the early stage of the invasion, when the shock to the nervous system is in many cases intense, and while patients generally rally from this condition, it is often with a marked cardiac weakness. He believes one or two full doses of morphin hypodermically would not only relieve the pain, but would minimize the nervous shock. Later in the disease, morphin is but seldom required. Secondly, he criticizes the injudicious and often unwarranted use of alcohol. Ordinary cases it seems to him do better without it, while in the intense alcoholic cases in which alcohol is usually given, strychnin hypodermically gives much better results. He uses as a cardiac stimulant instead of alcohol, the "liquor ammoniae acetatis." Thirdly, he believes that more patients are damaged than helped by the promiscuous drugging still too prevalent.

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**Scarlet Fever:** *The Medical World* for February, believes the "expectant" plan of treatment in scarlet fever is indefensible. Two routine treatments have been presented, both claiming brilliant results, yet neither has been generally accepted by the profession



at large. The first, the salicylate treatment, originated in Europe; the second, the chloral treatment had birth in America. In the first, two grains of salicylate of sodium are given in suitable menstruum, every two hours through the day, and every three hours during the night; this is kept up from the incipency of the disease until several days have elapsed after defervescence. In the second, two grains of chloral, in a suitable vehicle are given every two to four hours. The European plan would not appear dangerous, but Hare believes that the chloral treatment is not best for most cases "unless the nervous symptoms are very marked." One feature of treatment to which no objection can be urged, and to which every practitioner should devote his attention, is to provide a plentiful supply of pure water throughout the case. Distilled water is the best, since the main object to be secured is the thorough flushing of the kidneys with as little demand as possible upon their vitality. Beyond this the practitioner can only maintain ceaseless vigilance as any organ in the body may suddenly present serious complication. The temperature in itself is to be considered a source of danger if it remains above 102° F. and cool sponging at about 68° F. is the very best method of combating high fever. Anointing the surface can do no harm and in many cases apparently does much good. It is highly important that convalescence should be prolonged and a confinement in bed for four weeks is insisted upon by some of our best clinicians. Serotherapy has proven of no value as yet either in treatment or prophylaxis, and the same is true of inunction of soluble silver salts; inunction of or with eucalyptus, however, is more encouraging.

## Hepatic

**Therapeutics:** Hubert Richardson, in *Medicine* for January, asserts that in the treatment of hepatic insufficiency it has to be remembered that any one of its functions may be insufficient, and therefore it is of importance that they should be differentiated, by tests, showing the condition of the glycogenic, the biliary, the urogenic, the antitoxic and the oxidative processes. There are a certain number of drugs which are used in hepatic disease somewhat empirically, no study of their action in a pharmacodynamic way having been made excepting in cases of natural or artificial biliary fistula. Opotherapy of the liver has not so far received much attention, though pulped liver, and liver extracts have been used. There are preparations of powdered liver on the market, but they often produce stomach trouble. Robin has studied the action of drugs in the treatment of hypertrophic cirrhosis in its early stages. Opium in small doses diminishes the glandular and digestive secretions and is indicated in cases in which hyperactivity of the stomach exists. Belladonna inhibits the functions of the liver, while arsenic in small doses has a sedative effect upon the action of the liver, especially in the glycogenic function, but its use for any length of time, is contraindicated owing to its tendency to produce fatty degeneration. Mercury in small doses is an hepatic sedative; it does not increase the formation of bile, but stimulates Auerbach's plexus. Antipyrin and the bromids are also hepatic sedatives, and are especially indicated when the urea elimination amounts to 0.5 grams per kilogram of the body weight. They should be given in 10 grain doses before meals, with a little sodium bicarbonate

to prevent irritation of the stomach, and should be discontinued as soon as the urea elimination has reached normal. Potassium iodid in doses of five to 10 grains per diem is valuable but the doses must be small as the stomach in these cases is apt to be easily disturbed. Of the hepatic stimulants benzoate of soda stimulates all glandular secretions as also does sodium salicylate, the latter increasing the quantity of bile according to some observers. Sodium glycocholate mass in doses of 15 grains per diem stimulates the liver cells, increasing the flow of bile thereby removing accumulated waste products, especially bilirubin. In cases with the icteric coloration of the skin, it will clear up the complexion in a few weeks. Especially is it indicated in hepatic colic; many cases are on record in which its continued use has prevented the attacks of colic permanently. The diet in hepatic insufficiency and in hyperactivity should be moderate in quantity with a minimum of proteid. Probably the reduction in the quantity of food is the greatest therapeutic agent, most patients being or having been great meat eaters..

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### Adrenalin:

In *American Medicine* for February 24, Henry Guy Carleton calls attention to the external use of adrenalin in cases of neuralgia and neuritis. The first case in which he used it was a neuralgia of the left infraorbital, the entire course of which was angry, red and edematous with sympathetic pains in the supra-orbital, maxillary and temporofacial. Morphin gave only temporary relief, and the attacks occurred about twice a month. The application of 15 drops of a one to 3000 solution of adrenalin following the course of the infraorbital gave relief in a few minutes, and sleep followed. Similar cases were treated in a similar manner with equally good results; in some cases an adrenalin ointment one to 1000 was used, and experiment showed that from 0.06 cubic centimeters to 0.12 cubic centimeters (one m. to two m.) was all that was necessary applied along course of the nerve involved.

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### Diabetes:

*Merck's Archives for February*, states that von Norden agrees with Alfred Meyer, of New York, that corrosive sublimate may improve certain cases of diabetes, but there are only about six cases in the literature of the cure of diabetes by antisyphilitic remedies. It must be remembered, however, that diabetes are very sensitive to mercury. Of the drugs that have been used in diabetes Von Noorden assigns first place to opium. Having a distinct usefulness this drug has been greatly misused, some patients having been turned into true opium eaters without relief of the diabetes. While the patient is excreting large quantities of sugar, opium is not indicated. It is useful only when the glycosuria has already been reduced to about 20 grams a day by appropriate diet. Having thus reduced the sugar to a minimum, energetic opium treatment will cause the entire disappearance of the sugar. For this purpose 0.12 to 0.15 grams of codein daily is necessary. It is unknown how opium operates in diabetes. It may possibly cut off the nervous influences, at first producing fatigue, relaxation of muscles, and loss of appetite, opium is soon tolerated by the patients. Second in importance to opium are salicylic acid and its derivatives, such as aspirin, which is the best, injuring the alimentary canal the least. Salicylic acid is useful in

those cases in which opium is not. The former is good in slight cases, and during the time when carbohydrates are permitted. This drug has a more marked effect in reducing the quantity of sugar than an equal quantity of antipyrin. Renal complications contraindicate salicylic acid, and if gastrointestinal irritability is present, both salicylic acid and antipyrin are to be avoided.

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## Academy of Medicine of Cleveland

The thirty-sixth regular meeting of the Academy was held at 8 P. M., Friday, March 16th, 1906, in the Assembly Room, Hollenden Hotel.

Program: (1) A Critical Review of the Recent Literature on Surgery of the Stomach, Dr Joseph C. Bloodgood, Baltimore. Md.; Discussion was opened by Drs N. Stone Scott and J. P. Sawyer. (2) The Sub-acromial or Sub-deltoid Bursa and its Clinical Importance, Dr E. A. Codman, Boston, Mass. Discussion was opened by Dr F. E. Bunts.

CLYDE E. FORD, M. D., Secretary.

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### CLINICAL AND PATHOLOGICAL SECTION.

The thirty-second regular meeting of this Section was held at 8 P. M., Friday, March, 2nd, 1906, at the Cleveland Medical Library. Program: (1) Report of Cases of Cancer of Penis with Exhibition of Specimens, Dr A. F. House; (2) Injuries to the Wrist Joint, Dr H. A. Becker; (3) Hyperaemia as a Therapeutic Agent, Dr G. I. Bauman; (4) An Extreme Gastro-intestinal Case with Interesting Kidney and other Complications, Operation, Recovery, Medical Report, Dr H. G. Wagner; Surgical Report, Dr N. Stone Scott.

Members are requested to present interesting cases and specimens.

JUNIUS H. MCHENRY, M. D., Secretary.

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### SECTION OF EXPERIMENTAL MEDICINE.

The twenty-fifth regular meeting of the Experimental Section was held at 8 P. M., Friday, March 9th, 1906, at the Cleveland Medical Library.

Program: (1) Some Metabolism Experiments on Man, Drs H. D. Haskins and J. J. R. Macleod; (2) Perfusion Experiments on Normal and Cirrhotic Human Livers, Dr F. C. Herrick.

TORALD SOLLMAN, M. D., Secretary.

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## Resolutions Adopted at the Monthly Meeting of the Academy of Medicine, March 16, 1906

*Whereas:* The amendment to the Medical Practice Act, known as the Christian Science Amendment, recently offered in the Ohio General Assembly, designed to permit persons to practice medicine without showing evidence to a constituted authority that they are competent to recognize a contagious disease, and

*Whereas:* Such a privilege is obviously inimical to the public health.

*Be it Resolved:* That the Academy of Medicine of Cleveland hereby declare Senators Howe, Schmidt, and Williams of Cuyahoga County,



Lauman of Scioto County, Rose of Washington County, Duvall of Jefferson County, Hafner, Harper, and Hunt of Hamilton County, Pollock of Stark County, and Mayor Tom Johnson of Cleveland, who urged the passage of the Christian Science Amendment, as persons unworthy of confidence in matters concerning the public health, and

*Be it Resolved Further:* That a copy of this resolution be published in the medical journals of the State.

*Whereas:* The Academy of Medicine of Cleveland, recognizing that the interests of the medical profession required a rational provision in the Medical Practice Act for reciprocity of licensure between states, and

*Whereas:* House Bill No. 42, introduced to the Ohio General Assembly by representative John N. Stockwell, provided such a measure,

*Be it Resolved:* That this Academy hereby express its sense of obligation to Representative Stockwell and his colleagues, Senators Espy, Dunman, West, etc., for their indispensable services, which secured its enactment, and

*Be it Resolved Further:* That a copy of this resolution be offered for publication in the medical journals of the State, and that a copy thereof be sent to the legislators above named.

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### “To Whom it may Concern”

Associated Charities,  
1440 West Tenth St.,  
Formerly 309 Spring St.

Editor, Cleveland Medical Journal:

Sickness causes and accentuates so much poverty and suffering that the physician has frequent need to refer patients for aid outside his special province. In such instances he may be in doubt as to the proper agency to which the appeal should be made, and gives a note to the indefinite “To whom it may concern.” Such a note is taken about more or less aimlessly and in its lack of exactness the recipient may fail to secure the friendly aid he needs.

In such doubtful instances a note directed to the Associated Charities will receive from them prompt attention. Should it chance that the need does not fall in any one of the Association’s particular fields, the applicant will be directed at once to the proper source, since the Associated Charities is familiar with every philanthropy and constantly acts as a charity clearing house.

The Association itself renders needed aid in many cases and has facilities for quick action. Necessary aid will be promptly secured or rendered. Should there be pressing need it can be provided either through its relief department, or in its Wayfarer’s Lodge for stranded men and women. Reference cards will be promptly furnished to any physician on request.

The Associated Charities is located at 309 Spring Street, and has both telephones.

Yours very truly,  
The Associated Charities,  
James F. Jackson, Superintendent.

## American Gastro-Enterological Association

Preliminary program, ninth Annual Meeting, American Gastro-Enterological Association to be held at Boston, Mass., June 4 and 5, 1906.

1. President's Address: The Mutual Obligations of the Surgeons and Internists in the Proper Development of Gastric Surgery, H. W. Bettmann, Cincinnati.
2. Remarks on Bauh's Disease, Max Einhorn, New York.
3. Demonstration of Gastric and Intestinal Movements, W. B. Cannon, Boston.
4. The Kidney in Gastro-Enterology, A. L. Benedict, Buffalo.
5. Paper, Franklin W. White, Boston.
6. A Further Consideration of the Gastro-Intestinal Disturbances Associated with Migraine, J. A. Lichty, Pittsburg.
7. Hypersecretion, Associated with Cirrhosis of the Liver, H. F. Hewes, Boston.
8. On the Influence of Rest, Exercise and Sleep on Gastric Digestion, Julius Friedenwald, Baltimore.
9. A Case of Hyperplastic Colitis; Expiration of the Entire Colon, the upper portion of the Sigmoid Flexure and four inches of the Ileum, Morris Manges, New York.
10. A Case of Pyloric Stenosis in a Child of five years. S. W. Lambert, New York.
11. Recent Studies in the Diagnosis of Gastric Ulcer, J. C. Hemmeter, Baltimore.
12. Gastric Ulcer in Childhood, Harry Adler, New York.
13. Further Remarks on the Treatment of Chronic Round Ulcer of the Stomach, F. R. Murdoch, Pittsburg.
14. Spontaneous Rupture of the Colon from Violent Peristalsis, with Report of Fatal Case, G. W. McCaskey, Ft. Wayne.
15. Habitual Constipation Viewed from the Standpoint of Modern Evolution of Dietetics is a Physiologic Phenomenon, C. D. Spivak, Denver.

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## Program for Canton Meeting of Eye, Ear, Nose and Throat Practicians

1. My Experience in the Treatment of Duct Troubles, Walter H. Snyder, Toledo. Discussion led by J. E. Brown.
2. Visual Results after Cataract Extraction, D. W. Greene, Dayton.
3. The Anterior Capsule, in Operation for the Extraction of Cataract, C. F. Clarke, Columbus.
4. Some of the Minor Details Frequently Neglected in Cataract Extractions, R. D. Gibson, Youngstown. Discussion led by Mark D. Stevenson.
5. Hemorrhagic Neuro-Retinitis with Purpuric Appearances, W. K. Rogers, Columbus.

6. Hemorrhage into the Vitreous, with report of a case, B. L. Millikin, Cleveland. Discussion led by C. F. Clark.

7. Report of Two Cases of Radical Operation for Maxillary Sinusitis with Ethmoiditis; One Recovery; One Death, L. R. Culbertson, Zanesville. Discussion led by C. R. Holmes.

8. The After-Treatment of Operation upon the Mastoid, A. Timberman, Columbus. Discussion led by J. N. Lenker.

9. The Bronchoscope and Oesophagoscope as Valuable Aids to the Laryngologist and Surgeon, S. H. Large, Cleveland. Discussion led by E. L. Mather.

10. Report of a Case of Unusual Development of Mucous Polypi of the Frontal and Ethmoidal Sinuses, A. H. Marvin, Cleveland. Discussion led by J. N. Lenker.

11. The Artificial Drum-head, E. L. Mather, Akron. Discussion led by Charles F. Lukens.

12. Inflammation of the Eyes due to Infection from Hay Fever Conveyed by Tobacco Smoke, with the Report of a Case, J. W. Wright, Columbus.

13. The General Practitioner and the Ophthalmologist, Oscar Tydings, Piqua. Discussion led by D. W. Greene.

14. Glaucoma, the Necessity of Being Recognized Early, C. S. Means, Columbus. Discussion led by J. W. Wright.

15. The Use of the X-Ray and Electro-Magnet in Removing Foreign Bodies from the Eye, A. R. Baker, Cleveland. Discussion led by George S. Iddings.

16. Foreign Bodies in the Anterior Segment of the Eye and their Removal, W. E. Bruner, Cleveland.

17. Siderosis of the Lens, O. B. Monosmith, Lorain. Discussion led by W. E. Bruner.

18. A Study of Fifteen Hundred Retinoscopic Tests under a Cycloplegic with Special Reference to the Axes of Astigmatism and Accompanying Symptoms, W. Mc. L. Ayres, Cincinnati. Discussion led by Mark D. Stevenson.

19. The Present Over-Shadowing Problem in Ophthalmology—The Muscle Question, F. K. Smith, Warren.

20. Ocular Gymnastics, Wm. B. Van Note, Lima.

21. Muscular Asthenopia and Treatment by Ocular Gymnastics, Harry B. Harris, Dayton. Discussion led by C. F. Clark.

22. An Advancement Suture, J. E. Cogan, Cleveland. Discussion led by A. R. Baker.

23. Traumatic Enophthalmos—with report of a case, Charles F. Lukens, Toledo. Discussion led by S. C. Ayres.

24. Eye, Ear, Nose, and Throat Examinations in the Public Schools, C. L. Minor, Springfield. Discussion led by Walter H. Snyder.

25. Herpes Zoster Ophthalmicus, G. A. Sulzer, Portsmouth. Discussion led by H. G. Sherman.



26. A Case of Acromegaly, with Interesting Eye Symptoms, E. H. Porter, Tiffin. Discussion led by Francis Alter.

27. The Eye and Disease of the Central Nervous System, T. K. Moore Akron. Discussion led by Edward Lauder.

28. The Need of State Organization of Eye, Ear, Nose and Throat Practitioners, Mark D. Stevenson, Akron. Discussion led by J. E. Brown.

The meeting will be called to order in one of the fine Dining salons of the Courtland Hotel, one of the best in the state, at 9:30 A. M., Wednesday, May 9th, and will probably be continued on May 10th.

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## Book Reviews

Mechanical Vibration and its Therapeutic Application, by M. L. B. Arnold Snow, M. D., Professor of Mechanical Vibration Therapy in the New York School of Physical Therapeutics; Associate Editor of the Journal of Advanced Therapeutics, Late Assistant in Electro-therapeutics and Diseases of the Nervous System in the New York Post-Graduate Medical School, etc. Published by the Scientific Authors' Publishing Co., 465 Lexington Ave., N. Y. Price \$2.50 net.

The opening chapters are devoted to the history and development of mechanical vibration and therapy, and the description of various forms of vibration apparatus. The general technic of the therapeutic application of mechanical vibration is then taken up, together with the discussion of its general physiological effects. Several chapters follow on the special therapeutic application of this form of treatment to the different organs of the body. A number of plates and photographic illustrations are distributed throughout the text as an aid in understanding the technic of the apparatus.

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Ophthalmic Neuro-Myology. A study of the Normal and Abnormal Actions of the Muscles from the Brain Side of the Question. By G. C. Savage, M. D., Professor of Ophthalmology in the Medical Department of Vanderbilt University; Author of "New Truths in Ophthalmology" (1893) of "Ophthalmic Myology" (1902). Thirty-nine Full Page Plates and Twelve Illustrative Figures. Published by the Author, 137 Eighth Avenue, North Nashville, Tenn. Printed by Keelin-Williams Printing Co., Nashville, Tenn.

Dr Savage has long made a careful study of the ocular muscles. The present book is a companion volume to his "Ophthalmic Myology" which appeared several years ago. It is a study of the normal and abnormal actions of the ocular muscles from the brain side of the question as he believes that a better understanding of the subject from that standpoint will make the problems of the ocular muscles more easy of solution. He studies first the ocular rotations and the muscles affecting them and the brain centers controlling the ocular muscles. "Every form of ametropia has associated with it", he says, "a pseudo-heterophoria, and they are related to each other as cause and effect." "These pseudo-errors of the lateral recti muscles may exist alone or in combination with either intrinsic esophoria or intrinsic exophoria." In the third chapter he shows the relation of myopia and hyperopia to this condition of the muscles while in the

fourth and final chapter he studies compensating heterotropia—"an actual turning or torsioning of one or both eyes in order that there may be binocular single vision"—an activity of the muscles produced by the action of the fusion faculty of the mind on the basal center involved and excited by either natural or artificial conditions.

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A Compend of Medical Chemistry Inorganic and Organic including Urinary Analysis, by Henry Leffman, A. M., M. D., Professor of Chemistry in the Woman's Medical College of Pennsylvania and in the Wagner Free Institute of Science. Fifth edition, revised. Philadelphia. P. Blakiston's Son & Co., 1012 Walnut Street. 1905.

This volume appears in Blakiston's Quiz-Compend series and covers the subject as completely as is to be expected in so brief an epitome. It is essentially a compend of medical chemistry and aims to be nothing more. That these Quiz-Compends must fill a certain demand, is evident from their publication. It is to be regretted that there should exist anywhere a demand, induced undoubtedly by the medical requirements of State Boards, etc., that calls for the publication of Quiz-Compends.

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Diseases of the Nervous System, a Text-Book for Students and Practitioners of Medicine, by H. Oppenheim, M. D., Professor at the University of Berlin. Translated and edited by Edward E. Mayer, A. M., M. D., Pittsburg, Pa. Second American edition. Revised and Enlarged. 343 Illustrations. Philadelphia and London. J. B. Lippincott, 1904.

Through the courtesy of J. B. Lippincott & Company, Philadelphia and London, we have received a copy of the second American edition of Oppenheim's Diseases of the Nervous System. To the readers of the original, this work needs no introduction, but to all students interested in the subject and to those practitioners of medicine who want in a single volume the clearest and altogether most satisfactory presentation of his subject, we urge them, to secure the American translation. In our judgment, there is no single volume and, in many ways, no work which is as wholly satisfactory as is this text-book of Oppenheim's in its English dress. It is, of course, true that the larger and more exhaustive works upon diseases of the nervous systems must be accorded their authoritative places in this field, but it is also true that as text-book a work of this character is infinitely more satisfactory. The American translator is to be congratulated upon the way in which he has rendered into English the frequently difficult idiomatic original. In this the second edition, the number of illustrations have been largely increased, adding much to the value of the work and the important references in the literature are incorporated in the text. The whole subject of the diseases of the nervous system is considered in the way which constantly emphasizes the important points and so expressed, that after a careful reading they remain permanently before one. The index is sufficiently full to make the volume available as a work of reference. We heartily recommend this text-book.

The Signs of Internal Disease, with a brief consideration of the principal symptoms thereof, by Pearce Kintzing, B. Sc., M. D., Professor of Physical Diagnosis and Diseases of the Heart, Maryland Medical College; Physician to the Franklin Square Hospital, Baltimore, Md. Illustrated. Cleveland Press, Chicago, 1906.

Under the title of the Signs of Internal Disease, Dr Kintzing has presented in a most admirable way, the subject of physical diagnosis. In the face of the appearance of so many works upon this subject, it is apparent that the value of an individual text-book upon physical diagnosis, lies in a large measure in the methods of presenting the subject, in the mere form of statement, or arrangement of facts. It is conceivable that given a definite condition, a number of men will describe the identical symptoms of the chain of evidence, necessary to form an accurate conclusion as to the existing condition, in very different ways. There is something in the method of expression, in the arrangement of the paragraphs and the statement of facts that peculiarly appeals to us in this work of Dr Kintzing's. One would infer from reading this work that Dr Kintzing is a strong teacher of his subject, and that, fortunately, he has had the gift of accomplishing in writing, much the same success that is evidently his in the classroom. The first part of the work is devoted to the subject of medical anatomy, the rest of the volume being given over to a consideration of the subject from the standpoint of physical diagnosis and differential diagnosis as well. The illustrations throughout the work, both the half-tone plates and the diagrammatic sketches, are excellent. The volume is concluded by a satisfactory index. We heartily recommend this work alike to the student and the practitioner.

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Practical Problems in Diet and Nutrition, by Max Eichorn, Professor of Medicine at the New York Post-Graduate Medical School and Hospital, etc. William Wood & Company. New York, 1905.

In this little volume of 64 pages, Dr Eichorn has given a clear exposition understanding of the problems of nutrition and diet as they are met with in daily practice. Much stress is laid on the art of eating properly, the importance of which is all too frequently either ignored or poorly taught. The general rules for dietetics in diseases of the stomach and intestines are carefully laid down. There is a chapter devoted to dyspepsia and an important chapter is given to the consideration of the art of increasing and diminishing the body weight. This is an extremely valuable monograph.

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Koplik on Diseases of Children. A Treatise on the Diseases of Infancy and Childhood. For Students and Physicians. By Henry Koplik, M. D., Pediatricist to Mt. Sinai Hospital, Ex-President American Pediatric Society, etc., New York. New (2) edition. Revised and Enlarged in Text and Illustrations. Octavo, 868 pages, 184 engravings and 33 plates. Cloth, \$5.00; Leather, \$6.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

The second edition of Dr Koplik's authoritative text-book is sure to be accorded an even more enthusiastic reception than that given the



first edition of this work. The subject matter of this, the second edition has been increased, all the new and valuable material which has accumulated in the interval since the appearance of the earlier edition has been incorporated in the text and not a little irrelevant material has been eliminated or so recast, that in the reviewer's judgment, this volume represents an immense advance over the earlier edition. The chapters upon typhoid fever in infancy and meningitis have been practically rewritten. The consideration of the physiology and pathology of the new born is considered more fully than hitherto, adding much to the value of this part of the work. Throughout the volume all theoretical discussions have been omitted, the author preferring to state the sum of the judgment of the best known men upon pediatrics, when their views were in accord with the views of the writer and the leading pediatricists of this country. A number of new illustrations have been introduced into this edition, all extremely pertinent and helpful. Among them we cannot refrain from noticing the admirable colored plate 10, illustrating posterior basic meningitis. Perhaps no part of text-books upon pediatrics is more important than that devoted to the subject of infant feeding, and Dr Koplik has thoroughly covered this subject in such a way that the student or physician can readily grasp the fundamental principles and work out the desired formulae for general use in simple as well as difficult cases. An admirable index concludes this volume.

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Psychiatry, a text-book for Students and Physicians, by Stewart Paton, M. D., Associate in Psychiatry, The Johns Hopkins University, Baltimore; Director of the Laboratory, Sheppard and Enoch Pratt Hospital, Towson, Maryland. Philadelphia and London. J. B. Lippincott Company, 1905.

The work of the Baltimore Clinic in the field of neurology has already become widely known through the work of Berkley and that of Barker, each of these having covered exhaustively his special field. The last, and by no means least contribution to this speciality is the volume by Dr Stewart Paton, dealing chiefly with the mental side of the neurologist's work and covering, within the scope of a single volume, in a most exhaustive and thorough way, the domain of psychiatry. This is the first work of the sort, of which we know anything, that has been written with the motive constantly in view of making the subject intelligible to the student, and to the physician who may have no special knowledge of the subject. Dr Paton considers first the scope and methods of modern psychiatry and then passes on to a consideration of the nature of the diseased processes and their relation to the pathological changes. Perhaps one of the most interesting chapters of the work is that devoted to the symptoms of alienation, which considers exhaustively the various disturbances resulting from morbid changes in the various mental processes. The special groups have been described in a most interesting way and Dr Paton has brought to bear throughout the volume, the results of his wide clinical experience and knowledge of literature. The illustrations are sufficiently numerous, and illustrate graphically the special subjects which they illustrate. The anatomical and pathological side of the question is sufficiently considered, the

work constituting in every way a satisfactory text-book on the subject. It is a volume which every student and physician should read and become familiar with.

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Essentials of Bacteriology. By M. V. Ball, M. D., formerly Resident Physician at the German Hospital, Philadelphia. Fifth edition, thoroughly revised. By Karl M. Vogel, M. D., Assistant Pathologist at the College of Physicians and Surgeons (Columbia University), New York City. 12mo volume of 343 pages, with 96 illustrations, some in colors, and six plates. Philadelphia, New York, London. W. B. Saunders & Company, 1904. Cloth, \$1.00 net.

This Question-Compend seems to be rather unusually well arranged. The technic is given in sufficient detail, though unnecessary difficulties are brought up with regard for instance, to the making of agar. The chapter on inoculation of animals is brief but sufficiently explicit. An extensive list of bacteria both pathogenic and non-pathogenic with descriptions of their characteristics is accompanied by a sufficient number of illustrations. There are a certain number of inaccuracies in the descriptions, but no more than are found in the average text-book. At the end there are tabulations of the main characteristics of the more important bacteria. The type and proof reading are good, and in fact the book seems quite satisfactory for the purpose in view.

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A Text-book of Mechano-Therapy (Massage and Medical Gymnastics). For Medical Students, Trained Nurses, and Medical Gymnasts. By Axel V. Grafstrom, B. Sc., M. D., Attending Physician to the Gustavus Adolphus Orphanage, Jamestown, N. Y. Second edition, revised, enlarged, and entirely reset. 12 mo of 200 pages, fully illustrated. Philadelphia, New York, London. W. B. Saunders & Company, 1904. Cloth, \$1.25 net.

This volume, a reference book rather than a text-book, contains nothing new, but the author treats in a concise way the subject of massage and medical gymnastics. Rightly, he lays stress on the fact that this science, which today has an important place among the therapeutic methods, is more a remedial agent, to be used by the physician, surgeon or specialist as part of the general treatment. This fact is only too often lost sight of by the exponents of manual treatment, not to speak of these imposters that under various names have voiced this on the ignorant public, claiming to practice a profession for which, in most cases, they have absolutely none or, at the best, very incomplete scientific training. The nomenclature used does not, in some instances, seem as clear as those used by other authors and the modes of procedure in several cases does not strike the reviewer as being as practical as those advocated by authorities, such as A. Wide, in Stockholm, and others. There is always the danger which condenses a subject like this of treating some diseases exhaustively, while others just as important if not more so, are skimmed over in rather a cursory manner. This volume is no exception, but take it all in all, the work does credit to the author's meritorious efforts and serves its purpose well, provided it falls into the right hands, the hand of the physician or scientific practitioner. The volume is nicely gotten up.

## Books Received

The World's Anatomists, Concise Biographies of Anatomic Masters, from 300 B. C. to the present time, whose names have adorned the literature of the medical profession, by G. W. H. Kemper, M. D., Professor of the History of Medicine in the Medical College of Indiana, Indianapolis, Ind. Revised and enlarged from the original serial publication in *The Medical Book News*. With 11 illustrations, nine of which are portraits. P. Blakiston's Son & Co., 1012 Walnut Street. Philadelphia, 1905.

Recent Advances in Physiology and Bio-Chemistry, edited by Leonard Hill, M. B., F. R. S. Contributors, Benjamin Moore, M. A., D. Sc, John Hill, M. B., F. R. S., Lecturer on Physiology, the London Hospital. J. J. R. Macleod, M. B., Professor of Physiology, Western Reserve University, Cleveland, U. S. A.; Late Demonstrator of Physiology, the London Hospital; M. S. Pembrey, M. A., M. D., Lecturer on Physiology, Guy's Hospital. A. P. Beddard, M. A., M. D., Assistant Physician, Late Demonstrator of Physiology, Guy's Hospital. With diagrams. New York. Longmans, Green and Co. 91 & 93 Fifth Avenue, London: Edward Arnold, 1906.

Case Teaching in Medicine, A Series of Graduated Exercises in the Differential Diagnosis, Prognosis and Treatment of Actual Cases of Disease, by Richard C. Cabot, A. B., M. D. (Harvard), Instructor in Medicine in the Harvard Medical School and Physician to Out-Patients at the Massachusetts General Hospital. Boston, U. S. A. D. C. Heath & Co., Publishers, 1906.

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## Medical News

J. R. McCally and wife, of Dayton, have returned from Florida.

I. L. Wyant, formerly of Chesterton, is now located in Norwalk.

R. D. Jacobs, of Vinton, who has been seriously ill, is improving.

Lawrence Connell, of Alliance, has removed to North Georgetown.

T. B. Marquis, of Lisbon, who has been ill, is fast gaining strength.

Dr Badal, a Persian graduate of medicine has recently opened an office in Lowellville.

John Kerlin, of Greenville, has recently moved to Stelvideo, where he will continue to practice medicine.

J. D. Herron, of Blade, O., who has been ill for some time, is taking a vacation and has gone to Mobile.

A. M. Templeton, of Zanesville, has gone to New York City, where he will take a six-month's post graduate course.

C. A. Marquart, of Crestline, will leave very soon for New York City, where he will take a post graduate course in surgery.

Harry Martin, of Springfield, returned recently from Europe, where he has been taking a post graduate course in Vienna, Austria.

The regular monthly meeting of the Muskingum County Medical Society was held Wednesday evening, March 14. Several papers were presented.

J. W. Cooper and wife, of Bellaire, are in Pinehurst, North Carolina, where they will remain for several weeks in hopes of benefitting the Doctor's health.



The Fairfield County Medical Society held a meeting on March 20. A paper was read by S. A. D. Miller on "Erysipelas." At the April meeting, I. M. Waters, of Columbus, will read a paper on "Tuberculosis."

The Lorain County Medical Society held its regular meeting on Tuesday, March 13, at 8 o'clock at St. Joseph's Hospital. W. S. Baldwin and G. K. Beyer, both of Lorain, presented the following program: "Presentation of a Case," and "Some Uses of Drugs."

The Auglaize County Medical Society held a meeting on March 15 at which the following officers were elected: C. H. Phelps, president; H. E. Fledderjohann, vice president; C. L. Mueller, secretary; R. C. Hunter, treasurer; C. C. Berlin, B. O. Thomas, C. L. Dine, board of censors.

The twenty-fourth regular session of the Lake County Medical Society was held at 8 P. M., March 5, Parmly Hotel, Painesville, with the following program: "Clinical Cases," by members; "Hemorrhage," G. W. Crile, Cleveland; Discussion, led by Drs York and Carmedy; Unfinished business, J. W. Lowe, Secretary.

The quarterly meeting of the Knox County Medical Society was held Friday afternoon, March 9. The program was as follows: Call to order; Reading of minutes; Presentation and report of cases; "Myalgia," E. V. Ackermann; "Report of an Obstetric Case," Irvine Workman; "Colles' Fracture," S. P. Wise, Millersburg; "Ectopic Gestation," report of cases, B. F. Humbert.

The program for the April meeting of the Gallia County Medical Society is as follows: Lester Kellar, Ironton, "Medical Treatment of Appendicitis from the Surgeon's Standpoint." A. G. Helmick, O. H. E., subject to be selected. L. C. Bean, Gallipolis, "Diseases Prevalent in the Marine Hospital Service"

At the Butler County Medical Society meeting on March 21, the program was as follows: "Some Clinical and Pathological Considerations of Skin Cancer," demonstrated by lantern slides, M. L. Heidingsfield, of Cincinnati. Address, "Through a Patient's Spectacles," Rev. W. B. Gantz. Dr Flenner the next president presided.

The Jefferson County Medical Society held their regular monthly meeting in Steubenville on March 14, with the following program: Call to Order, by the president; Reading Minutes of Last Meeting, by the president; Clinical Cases, by the society; "Tubercular Peritonitis," Melvin Gregg; "Differential Diagnosis," S. J. Podlewski; "Rupture of Uterus," report of case, J. M. Watt.

A meeting of the Stark County Medical Society was held at the city hall, Tuesday afternoon, March 20. The following was the program: A lecture on the "Treatment of Pulmonary Tuberculosis," by Dr J. P. DeWitt, Canton; lecture by Dr F. W. Gavin, Canton, on "Prenatal influence, a Factor in the Formation of Personal Traits and Talents," reports on cases; "Cardiac Neurosis," Dr C. P. Wolf, Massillon; "Abscess of the Brain," Dr F. E. Hart, Canton; "The Maligner," Dr R. G. Walker, Louisville; "Angina Pectoris," Dr W. S. Foulk, Canton. Dr DeWitt's paper was discussed by Drs T. Clarke Miller, J. Fraunfelter, Barnes and Zinninger. Dr Gavin's paper was discussed by Dr Santee. The following were elected to membership of the society: Drs John D. O'Brien, of Massillon; J. F. O'Brien, of Canton; J. M. Beatty, of Canton, and J. B. Dougherty, of New Berlin. The following applications for membership were received: Drs T. H. Landon, of Canton; F. D. Smith, of Hartsville; J. H. Sanor, of Canton, and J. D. Holston, of Massillon. Dr L. B. Santee was elected as a delegate to the meeting of the state medical society, which will be held in this city May 11, 12 and 13, and Dr W. C. Steele, of New Berlin, as alternate.

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## A Day in Salerno

BY CHARLES J. ALDRICH, M. D., CLEVELAND, O.

In none of the cities of Europe does one feel the spell of the medical past as in the little town of Salerno. This ancient town of Italy, situated on the Bay of the same name, and forty miles distant from Naples, was the seat of the greatest school of medicine that flourished in the middle ages. The impress of this school of the mediaeval medicine was both fortunate and lasting. The erudition of its teachers was known throughout all of Europe and much of the Orient. Their fame has been preserved to us by contemporary medical literature, as well as by many contributions which its magisters and pupils made to the healing art.

Alas, the Salerno of today contains not a single book or manuscript of its ancient libraries, not a stone of its hospitals to commemorate its glorious past. Its academy is not a ruin, no, nor even a memory, but exists only as a record of achievement, an ancient story of departed greatness.

From where its narrow and uninteresting streets shoulder the asphodel covered hills, I wandered down to where their feet are bathed in the liquid lapis lazuli of the Mediterranean, seeking vainly for some memento of that great academy where Petronius, Bartholomew, and the aged Musandinus taught with characteristic devotion the medical lore and the peculiar superstitions of the ancient as well as the middle ages. Nothing was found to show where the war-like John of Procida lived; not a tradition of the spot where the elegant Maurus declaimed, or where the great Roger of Parma and his equally illustrious pupil Roland performed operations that have been revived during the last century only.

Salerno was the medical and surgical Mecca of the middle ages. To it journeyed the diseased and the maimed. Indeed it was the fountain where those athirst for medical learning drank as deeply as the purity of the spring allowed.

The weary Palmer paused on his return from the pestitential lands of the Orient to have his sores healed and rest his bare and blistered feet; the crusader full of wounds and the diseases of camps shortened sail at the Bay of Salerno, and invoked the skill of the medical masters of this ancient seat of learning. The devoted disciples of medicine thought no land too wide, nor sea too broad, nor desert-sands too hot to cross in order to sit at the feet of the magisters of this ancient academy. Indeed Salerno became a great focus for the dissemination of medical lore and ideas.

We learn from the "Four Masters" that these ancient doctors trephined both for depressed cranial fractures and for the removal of intracranial, bloody serous collections; admitted fracture by *contra coup*, and used sponge pressure and cauterization for hernia cerebri.

Basal fracture was recognized, and in its diagnosis the importance of vomiting, nausea, unconsciousness and bleeding from the ears clearly set forth.

A canula of alder wood was inserted into a wounded intestine over which the gut was carefully sutured; blood vessels were ligated, direct, mediate, and *en mass*. Roland here first used iodine for scrofula and syphilis in the crude form of the tincture and powered sponge long before the discovery of that element.

The jugular vein and carotid artery were ligated above and below the wound to stop the hemmorrhage, and fistula was treated by the knife and ligature. Venereal sores and scrofulous glands were excised, *and even goiter was removed*.

Lithotomy was successfully performed, and their care of fractures was far in advance of their contemporaries.

In medical history the school of Salerno is to be remembered more for the transmission of the doctrines of Hippocrates and Galen, in its ancient force and purity, rather than any original ideas or work accomplished.

The artful plagiarist Constantine Africanus, was vicariously responsible for this reflected glory, which was indeed so great as to attract many great minds whose emanations later served to cast a few rays of intellectual light upon the middle ages made so dark by ignorance, superstition and bigotry.

Medical Salerno is no more; the graves of its great masters are forgotten; the situations of its hospitals, lost even to legend; and the beautiful Trotula, the great woman physician of early times lives only in tradition.



The Regimen Sanatas which is preserved, is a credit to the thoughtful minds of that mediaeval school of medicine. Indeed it may be read with profit even in this golden age of medicine and surgery. It was addressed to Robert Duke of Normandy who had journeyed to the famous hospital of Salerno to be healed of a poisoned arrow-wound of his sword arm, which he had received at the seige of Jerusalem. In courtesy to his claims to the throne of England he was addressed as Albion's King. The following quotation will reveal much good advice given in the Leonine Rhyme so popular mong the Benedictines of the middle ages:

"Salerno's school in conclave high unites,  
To Council England's King; and thus indites:  
If thou to health and vigor wouldst attain,  
Shun mighty cares, all anger deem profane;  
From heavy suppers and much wine abstain;  
Nor trival count, if after pompous fare  
To rise from table and to take the air.  
Shun idle noonday slumbers, nor delay,  
The urgent calls of nature to obey.  
These rules if thou wilt follow to the end,  
Thy life to greater length thou may'st extend."

Later while at Baiæ we are reminded that the jealousy of the physicians of those days was rancorous indeed. It is said that the Thermal Springs of Neromande were widely celebrated. Indeed the claims of ye ancient hydropatlist was fully as arrogant and all-embracing as his modern representative, since they rejected all other measures and asserted that the baths was a cure for all the ills that plagued mediaeval man.

These extravagant claims wore on the Scientific Masters of Salerno, and it is related that one night three physicians of the ancient academy disembarked on the coast near Pozzulli with a party of piratical fellows and completely destroyed the bathing establishment, but the divinity of the baths evidently invoked the rage of Neptune, the master God of hydrotherapy, for on return, their ship was wrecked upon the rugged rocks of Capri and the three physicians drowned.

As our carriage drew away toward Amalphi—the hillside Athens of the middle ages, Amalphi that one time was the center of the naval and maritime world—it was with no little regret that I contemplated the fact that not a stone or a tablet is left to commemorate the existance of the famous old school of Salerno.

The great tide of religious bigotry which swept the middle ages left Salerno stranded, dismantled and almost forgotten. Her

academy was too broad and Catholic of idea to fit the intolerance of the times. In the days of her glory the Jew, the Saracen, and the Benedictine Monk, undisturbed by creed taught medicine and mysticism, according to the dim light which science shed upon that era of intellectual night.

Medically Salerno's future is as tideless as the sea at her feet. How fitting to find her heights crowned with asphodel, the flower of death, the same flower whose fragrance was wafted to the blind Homer from the "Meadows of the Dead."

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## Foreign Bodies in the Cornea and Conjunctiva\*

ALBERT RUFUS BAKER, M. D., CLEVELAND, O.

Among the more frequent minor accidents that befall mankind which the medical man is called upon to give relief is the removal of foreign bodies from the eye. Notwithstanding the protection of the brow, eyelashes, lids, the sensitive nerve endings of the cornea and the lachrymal apparatus, particles of dust, cinders, chips of metal, small insects, indeed almost any conceivable small object may find lodgement in the conjunctival sack or upon the cornea. The amount of irritation caused by the presence of a foreign body in the eye does not depend upon its size so much as upon its irregular shape and its position. A small cinder lodged upon the under side of the upper lid and rubbed on the cornea with every movement of the eyeball will cause the most excruciating pain and make life almost unendurable until removed. The same cinder might be imbedded in the cornea for a number of days causing relatively little discomfort.

A foreign body with a smooth surface like a flax seed may float about in the conjunctival sack for a long time without causing great discomfort. But sooner or later foreign bodies that do not call immediate attention to their presence by pain and profuse lachrymation by their rough outlines or position will make their presence know by a more or less severe catarrhal inflammation of the conjunctiva or by a small burst of blood vessels extending towards it; if imbedded in the cornea. Grains of powder and small metallic objects such as bits of steel or iron may become imbedded in the conjunctiva or even in the cornea without causing any deleterious effect other than a cosmetic one and possibly impairment of vision if in the cornea. The patient may or may not be

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\*Read before Northeastern Ohio Medical Society, Canton, Ohio

aware of its presence. Probably in the majority of cases he is conscious of its presence and yet on the other hand the patient will frequently come to the surgeon, positive there is something in the eye when the most diligent search will fail to discover anything. It is possible that in most cases there has been something in the eye but it has either been washed out by the tears or removed unconsciously either by the patient or his friends, and the sensation of there being something in the eye is due to the previous irritation similar to that of a sensation of a fishbone still in the throat after it has been removed. A drop of a 2% solution of cocaine to relieve the immediate symptoms and assurance that a night's sleep will relieve all unpleasant symptoms will be all that is necessary in these cases to effect a cure.

So many obscure symptoms are due to the presence of foreign bodies in the eye, and they are so easily overlooked that it is necessary in every case to carefully inspect every portion of the cornea and conjunctiva. Only yesterday a pastor of one of our city churches came to me with this history: Three weeks ago his right eye suddenly began to trouble him; he consulted his family physician who gave him a boric acid wash which he used diligently for several days without relief. He again consulted the family doctor who changed the wash to sulphate of zinc, and advised him if he did not soon get relief to consult an optician for spectacles. The eye not improving he bought a pair of spectacles from the nearest optician. The spectacles not affording relief, he followed the advice of a neighbor and applied a poultice. Fortunately he did not follow this treatment long; he came to me suffering from a poultice conjunctivitis, but while telling me his story I could see a foreign body in the cornea, the cause of all his trouble, which proved to be a very small metallic body such as I think frequently comes from the trolley or wheels of electric cars.

The examination should be made carefully and systematically. First the cornea with direct daylight, and if the source of trouble is not found, oblique artificial light and the ophthalmoscope. Careful inspections of the conjunctiva should be made, the outer and inner canthus beneath the lower lid, then invert the upper lid by placing a probe or pencil along the upper border of the tarsal cartilage and taking the lashes in the fingers and forcing the lid over the probe toward the brow. This can be done most easily by standing behind the patient with his head resting against your breast, but most oculists prefer to invert the lid from in



front for obvious reasons; and become so expert that they scarcely ever need to use the probe and even use only one hand.

The most frequent site where the foreign body will be found is on the surface of upper lid about the middle of the tarsal cartilage and can be readily wiped off with cotton on a probe. If not found in this location the eye should be turned downward, and a careful search made in the retro-tarsal fold where very large foreign bodies may be concealed; such as blades of grass or beards of grain, caterpillars, flies and insects, splinters of wood, etc.

For a number of years I have been called upon to care for the injured eyes in the Buckeye Electric Works, where a large number of girls are employed in making incandescent light bulbs. The thin glass of which they are made is frequently broken, particles fly into the eyes, and small particles are lodged in the conjunctiva or in the cornea. Often the hemorrhage is quite profuse and the patient is alarmed out of all proportion to the seriousness of the injury. There is always considerable anxiety as to whether the glass has all been removed. Sometimes quite large pieces were wiped out from the retro-tarsal fold and numerous small particles have been found imbedded in the cornea but seldom a penetrating wound of the eye. In case of doubt as to the presence of glass in the eye either within or outside of the ball the X-ray will surely reveal its presence, a most useful aid to diagnosis in all such cases which should be used in every case of doubt.

Eye lashes and bits of hair will not infrequently be found in the conjunctival sack and in several cases I have found cilia in the canaliculus the points of which were protruding far enough to cause the most annoying irritation of the eye. Many patients come to the consulting room with an irritated eye and often think they have something in it which will be found to be due to small vesicle not so large as a head of a pin on the tarsal edge, pricking it with a needle will give immediate relief.

In a large manufacturing city like Cleveland, the physician is called upon daily to remove cinders, pieces of emery, steel or other metallic substances from the cornea. In all large manufacturing plants there is one or more of the employees who become quite expert in removing foreign bodies from the cornea. During the past few years the more difficult cases are referred to the contract surgeon and usually by the time it reaches the oculist it has become infected and what would have been a very simple case

if seen early may prove most serious. It is extremely important that surgeons employed in this capacity should not only be skillful in removing foreign bodies but should take every precaution to avoid infection.

The removal of foreign bodies from the cornea requires a good light, perfect eyesight, steady hand and good judgment. If possible a north light should be procured from the window as little obstructed as may be with shades, curtains and other objects causing annoying reflections. The patient should face the window and the surgeon placing a towel over the patient's head and then standing behind him is ready to remove the foreign body.

Two or three drops of a 2% solution of cocaine should be instilled in the eye at intervals of one or two minutes. The cocaine should be freshly prepared; no solution should be used more than 24 hours old. The most convenient method of preparing solutions is by the use of tablet the same as are used for hyperdermic medication. A tablet 2 3-5 grains to a dram of boiled water will make approximately a 2% solution. If the eyes are very irritable or sensitive to light a drop of the cocaine solution in the uninjured eye will greatly facilitate the ease of the removal of the foreign body from its fellow. The lids should be washed as well as the surgeon's hands and all instruments carefully sterilized. Almost any fine pointed instrument will serve well in the hands of a skilled operator. But for a general use what is usually described as a spud will be found most useful.

A loupe—a large lens of about two and a half or three inch focus is of great help in focusing the light upon the cornea and with artificial light is essential. It is convenient to have an assistant to focus the light, although most oculists dispense with the assistant and hold the lids open and steady the eye with gentle pressure with the second and third finger and hold the lens and focus the light with the thumb and first finger of the left hand and remove the foreign body with the right. The surgeon placing a towel over the patient's head which is placed against the surgeon's breast, the foreign body is removed with the instrument held in the hand as a pen and lifted out by working with a slight scraping movement beneath the edge of it. Since the discovery of local anaesthesia this is very easily accomplished but formerly was often quite a difficult task and many times the surgeon was obliged to resort to general anaesthesia. Sometimes in case of metallic substances deeply imbedded material aid will be given by the electro magnet. Several times when splinters of iron or

steel have been found deep in the cornea or even partially in the anterior chamber I have followed the suggestion of Lawson and passed the needle through the cornea behind the foreign body and thus supported it so it could be removed without forcing it into the anterior chamber. It is seldom necessary to use a speculum in removing foreign bodies from the cornea but in these cases it is best to place the patient on a table and use the speculum and steady the eye with the needle through the anterior chamber.

In removing grains of powder or other small particles imbedded in the conjunctiva it is best to place the patient in the recumbent position and introduce a speculum and then take hold of the foreign body with a fine mouse-tooth forceps and lift it up and snip off the conjunctiva with a fine pair of scissors. In case of powder grains it may be necessary to cut off numerous small pieces of conjunctiva yet I have never seen any deformity resulting therefrom. If the hemorrhage should be annoying a drop of adrenalin 1-10000 will control it and permit you to proceed. If the foreign body has passed through the conjunctiva and lodged in the sclerotic it can be scraped out with the spud, the same as from the cornea.

Usually when a person is conscious of something having entered the eye they immediately rub it with the back of the hand or handkerchief and thus if it happens to have any sharp or ragged edges forces it into the substance of the cornea or lid as the case may be and fix it there immovably. While if let alone the profuse lachrymation would probably soon have washed it out. It is always better to take the lashes between the fingers when something has entered the eye and lift the lid away from the ball and let it fall out or let the tears wash it out, rather than rub it in.

This of course requires considerable fortitude which many of us do not possess. Generally speaking no treatment is necessary after the removal of sterile substances from the conjunctiva or cornea, providing it is removed promptly and the eye not infected in its removal. Unfortunately all foreign bodies entering the eye are not sterile and the efforts at removal are frequently that most calculated to infect the eye. Between poultices and eye stones, flaxseeds and licking it out with the tongue and even more disgusting and uncleanly procedures, such as washing the eyes with urine it is remarkable that more infected eyes do not come to us.

The most frequent form of infection is that of an acute catarrhal conjunctivitis, generally due to the bread and milk, flaxseed or other poultices applied for the relief of pain. There are



always present numerous pathogenic bacteria in the conjunctiva and all that is necessary to kindle an acute conjunctivitis is to lessen the normal resistance of the healthy conjunctiva by the application of heat and moisture and it matters little whether this be a good soft home-made poultice or a more uncomfortable moist, antiseptic dressing applied by the surgeon—the results are the same.

Recent acute cases of not too virulent a character will be quickly cured by removing all dressings from the eye and washing the conjunctiva frequently with sterile water or preferably saturated solution of boric acid in water. If of longer standing or if the secretion is of a markedly purulent character a 2% solution of protargol had best be first instilled into the eye followed by repeatedly flooding out with boric acid solution. If ulceration of the cornea be present the prognosis should be more guarded. If the ulcer presents a "dirty" appearance all the shreds of broken down epithelium should be scraped off with a needle or spud the same as in removing a foreign body, then wrapping a fine probe or tooth pick with a little cotton dipped into a 1-250 to 1-500 solution of bi-chloride of mercury and touch the ulcer giving the cotton a slightly rolling motion so as to touch every particle effectually and yet using great care to prevent an excess of the bi-chloride so as to run over the healthy cornea. This I have found fully as effectual as the actual cautery not leaving such large scar tissue and devoid of danger. It is good practice to use this as a precaution after removing foreign bodies suspected of being infected or where numerous attempts have been made at removal. Under cocaine it is not painful. If there is no conjunctival complications the compress bandage with dry dressings may be used. But if there is any suspicion of conjunctivitis, past or present it is better to leave the eye open. If the eye is painful even though there be no evidence of iritis, atropia 4 gr. to oz. dropped in the eye two or three times daily proves beneficial.

The use of hot water will prove our most valuable ally used by hot compresses much as the barber applies a hot towel to the face after shaving, or putting the eye into a cup of hot water as recommended by Dr Connors. The hot water should be used from twenty minutes to an hour, repeated two or three times daily and more frequently if pain be present.

## The Druggist and Proprietary Medicine Legislation

The Committee on Public Policy and Legislation of the State Association are to be complemented upon the strong stand taken with reference to the enactment of legislation, requiring manufacturers and proprietors of the various nostrums containing narcotic and other poisonous substances to label their products with the name and quantity of such ingredients. In this connection it is singular indeed to note the activity of a few druggists who would represent the State organization in opposing this wholesome measure.

The fact, however, that the manufacturers have been called to their assistance has reflected upon their sincerity, especially since the bill is being given the loyal support of the conservative element of the State Pharmaceutical Association, including the more prominent druggists, who have been associated with that organization from its infancy.

Why any fair-minded pharmacist should offer the slightest objection to this measure which seeks to apply the sentiments expressed in the Ohio poison law (an ideal measure) to proprietary medicines is more than they have so far been able to explain.

The justice of the law is obvious when after two hearings before the committee to whom it was referred, they have unanimously recommended its passage.

We wish to commend those druggists who are making every effort to do their duty in the support of this health measure and sympathize with those who are unable to see the error of their ways. The lateness of the session seems to be the only hindrance to the enactment of the bill.—*The Ohio State Medical Journal*.

# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
THE CLEVELAND JOURNAL OF MEDICINE

MONTHLY

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## EDITORIAL

### The California Disaster

In behalf of the profession of Cleveland and Ohio, we desire to express to the profession of California and of the city of San Francisco, our deepest sympathy in the terrible calamity which has overtaken them.

The immensity of this catastrophe which has fallen upon the people of San Francisco staggers the imagination. It is doubtful, if in our wildest conception of such a disaster, we can appreciate, even in small part, the extent of desolation and ruin which must follow. Happily the actual loss of life seems to have been small, though it may be days or weeks before we can know its full extent. The country at large has responded with characteristic eagerness, generosity and charity so far as it lies in its power. To the California State Journal, we would express our special sense of sympathy in the loss which it has shared together with the community at large.

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### For Pure Milk

Milk Commissions usually have a primary and a secondary purpose. The primary purpose is to meet whatever demand there is or may develop for a milk of exceptional cleanliness, produced under its direction and examined by its agents; the commission



having no financial interest in the sales aside from necessary expenses. Moreover, these expenses, such as those incident to the inauguration of the work, may be born as in Cleveland by philanthropic men.

The secondary purpose of commissions is to improve the general milk supply by education of the public as to the desirability of clean milk for every one and its necessity for infants, and education of the producer in the methods of its production.

Milk Commissions have everywhere attained a degree of success in their secondary purpose. That Cleveland's Commission is no exception to the rule is indicated in several ways.

The health code of the city, which as to its regulations of the milk supply, was written since the organization of the Commission, embodies most of the rules known to be necessary for the production of a high grade milk. That the directions in this code must be considered educational and advisory rather than obligatory must, we think, be conceded. If followed, the directions should result in a milk of about the quality of the "Inspected Milk" of the New York Commission.

An additional indication of the educative or supposed educative effect of the Commission may be seen in the claims and advertising put forth by dealers since its organization.

We have already called attention to the claims of a dealer who adopted the copyrighted term "Certified" as a part of the firm-name during the time the Commission was organizing, and who has at various times claimed that his milk was actually certified by the Commission, although on one occasion, at least, an examination by the city Bacteriological Laboratory showed it to have a very high bacterial count.

A further indication of the educative effect of the labors of the Commission may be found in the advertising used by those firms which employ this method of publicity. Some of these larger dealers have been glad to aid in the distribution of Certified Milk, and physicians are indebted to them for their present ability to secure this milk in practically every part of the city, without the trouble and expense of special messenger delivery. Therefore, in commenting upon their advertising we must not be thought unappreciative of their public service. As compared with Certified Milk distributed in a score or more of wagons, an ordinary milk business of equal volume would be distributed from one or two wagons in a relatively small area, and could not be distributed to the entire population with a profit.

As the provisions of the health code have approximated the regulations of the Commission, so has also the general tone of milk advertising. Every encouragement should be given those who are trying to furnish a milk of improved quality, and we do not wish to imply that the firms upon whose advertising we are commenting are not trying, for self-preservation as well as for other reasons, to give its patrons a better and more satisfactory milk. Fulfillment, however, does not always keep equal pace with promise.

Physicians need more complete knowledge of the conditions surrounding the production of pure milk so that they may be able to scrutinize with intelligence the claims of those who are supplying this greatest of necessities to the infants and invalids under their care. Finally, when physicians order what is in their opinion the best milk they should not rest content but see that it is received. It is stated, for instance, that distributors of Certified Milk have tried, occasionally with success, to persuade prospective purchasers of Certified Milk to take their milk instead. Further, patrons of these dealers, using milk for the feeding of infants, have complained to them of the poor quality of the milk they were receiving and, willing to pay any price for a good milk, have not had Certified Milk called to their attention. The dealers, of course, deny any knowledge of such occurrences.

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### House Bill Number 42

In the April number of the *Journal*, we published the resolutions, adopted by the Academy of Medicine of Cleveland expressing the sense of obligation of the profession of the city for the interest in our behalf in securing the passage of this Bill, known as House Bill No. 42. As illustrating the latitude of the profession throughout the State, we desire to call attention at this time to the resolutions adopted by the Academy of Medicine of Cincinnati and Columbus, bearing upon this subject. These resolutions were received too late for publication in the April number of the *Journal*.

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### An Appeal

The appalling disaster which has overtaken California and the city of San Francisco, demand immediate and generous relief. It is true that many of us have already been appealed to through the various agencies of relief which were so promptly

organized immediately following the disaster. To those who have already given, we would ask such further help as they may be able to extend and to those of us who have as yet made no contribution, we appeal for a generous response to the opportunity to contribute through the organized effort of the Cleveland Chamber of Commerce. We publish on another page of the Journal, the circular letter sent out by the Chamber of Commerce, under date of April 19th.

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## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

### Digitalis :

*The Therapeutic Gazette* for March, questions the assertion that with a failing heart and aortic incompetence, digitalis should be given. The writer of the article states that he would hesitate in such cases to give digitalis, although not prepared to go so far as to state that it is contraindicated in all cases. Without doubt, certain cases of aortic regurgitation with failing compensation are improved by this drug. But, on the other hand, a considerable number do not gain, and really suffer from its use. The prolongation of diastole which permits regurgitation to take place for a longer period than if the drug was not used is not the only reason why digitalis in many instances is not the best remedy, for as is well known this drug causes a marked rise in arterial pressure, through its actions on the blood-vessels, at the same time that it stimulates the heart. This increase in arterial tension aids materially in increasing aortic regurgitation. He advises in the majority of cases of aortic regurgitation, rest, combined with the administration of strophanthus, spartein or some similar cardiac stimulant, believing it a more rational plan of treatment. If they fail, then digitalis may be employed and in certain instances it may be wise to put aside the vascular effect of this drug by the simultaneous administration of nitroglycerin. The necessity of stopping the digitalis when compensation is established is emphasized, and if the physician decides to give, as Bruce has suggested, massive doses of the drug in aortic regurgitation, he should insist that the patient be kept at rest in bed, and be forbidden to sit up or stand up suddenly, particularly if he assumes the erect posture to empty the bladder, as this often results in syncope.

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### Antitoxin :

*Medicine* for March, quotes John Howland (*Archives of Pediatrics*, January, 1906), as earnestly advocating the use of diphtheria antitoxin in far larger doses than are commonly employed. He effectually disposes of the fear that diphtheria antitoxin has any untoward effects and says the occasional unpleasant symptoms noted after this administration may be disregarded. He approves of the working rule advocated by Holt, that on the second day the dose should be twice that of the first for an equally severe condition, and on the third day three times. It is better to give a sufficient quantity to neutralize the toxin at once than to give it in divided doses. If necessary to give 20,000



units, it would be better to give it at once than to give 5000 units at four hour intervals. The toxin that is unneutralized would remain in the circulation, and inflict irreparable damage. For immunizing a child under two years, except in the very young, 500 units is the proper dose, for a child over two years, including adults, the dose should be 1000 units. A mild, early attack in a child less than two years of age, (those of a few weeks still being excluded) is readily cured by 2500 to 4000 units, but the larger dose is safer. A similar attack in an older child should be met by the injection of 5000 to 6000 units and when seen late in the disease they should be given proportionately larger doses. When the case is complicated by pneumonia, very large amounts of antitoxin should be given, from 25,000 to 50,000 units. In a considerable number of cases, the Klebs Loeffler bacillus is responsible for the pneumonia, and in such it will be followed by a prompt resolution. Pneumonias, which develop after the antitoxin has been given, which is especially true of laryngeal cases, are due to the streptococcus or pneumococcus, and are not influenced by the antitoxin treatment.

**Acute Gastritis:** In *Merck's Archives* for March, L. R. Barstow states that acute gastritis is not the bugaboo in treatment that the chronic form is. The treatment is confined mainly to a few lines,—rest, both of the organ itself, and of the body; evacuation of the stomach and bowels; control of the temperature and vomiting, and diet. He uses as few drugs as possible. He gives as an emetic and to avoid irritation of the mucous membrane, apomorphin hypodermically, in doses of from one-tenth to one-fifth grain. He finds few patients who are willing to submit to lavage. For evacuation of the bowels, calomel in small doses, one-tenth grain every hour, or calolactose,—being a fine trituration of calomel and bismuth subnitrate, in doses of one grain. This generally controls the vomiting as well. If the latter is very severe, he orders an ice-bag to the epigastrium, small chips of ice by mouth, and finally cerium oxalate, and narcotics such as opium or cocain. In very severe cases, rectal injections of an emulsion containing some form of opium are useful. The temperature is generally easy to control by cool sponging or ice packs, the antipyretics being seldom indicated. As to diet, he prohibits all food for the first 48 hours, allowing plenty of cold boiled water, or the carbonated or mineral waters. After this time he commences on a milk diet, four to six ounces every three or four hours, and gradually increases it as the patients condition improves. If the patient be troubled by sour belching, alkalies such as sodium bicarbonate are indicated. With subsidence of the acute symptoms, exhibition of the bitter tonics is generally followed by a prompt recovery.

**Cerebral Paralysis:** In the *Journal A. M. A.* for March 31st, Daniel R. Brower, believes that the preventive treatment of cerebral hemorrhage or thrombosis is the treatment of the arterial degeneration on which they depend. He thinks the specific relations to arterial degeneration are sometimes overlooked. He is of the opinion that degeneration of arteries that are found in younger people, in the absence of interstitial nephritis, of very pronounced chronic alcoholism, and tuberculosis, are specific, and demand the use of mixed treatment to the maxi-

imum capacity of the individual. Those cases that do not have a specific history are much benefitted by a course of chlorid of gold and sodium. This drug should be rubbed up dry with the pulverized resin of guaiac, put dry in a capsule and administered before meals, along with this there must be a proper attention to elimination by the skin, kidneys, bowels and due attention to the digestive functions. The treatment of the apoplexy depends on the diagnosis of the lesion. If sure that it is hemorrhage, reduce arterial tension, administer croton oil, ice to the head, hot mustard plaster to the feet, tincture of aconite frequently repeated in full doses and head of bed raised. If sure the lesion is thrombosis, the treatment should be diametrically opposite. Increase arterial tension by strychnin and other cardiac tonics; avoid active purgation. In the great majority of cases the safe treatment will be characterized by a masterful inactivity. With the disappearance of the apoplexy, attention should be given to the paralyzed muscles. Gentle massage and passive movements that will preserve the nutrition of the muscles are indicated from the beginning; if the muscles are not maintained in a proper state of nutrition when the collateral edema disappears, function cannot be reestablished, and in his experience this very important consideration is often overlooked. After about ten days mild faradic exercise of the muscles should be commenced and used every day.

### Diabetes:

*American Medicine* for March 31st, believes that alcohol in diabetes is intimately bound up with the food question. Plant physiologists have about concluded that vegetable cells cannot utilize sugar delivered to them in the sap until they have first changed it into alcohol and there is some evidence that this is also the first step in the oxidation of sugar by animal cells. Should this be true it would be rational to feed alcohol to diabetics during the period that starches and sugars are withheld, indeed some therapists advise it on empiric grounds, or for the symptomatic treatment of the exhaustion. It is unfortunately given in large doses which have narcotic effects, whereas it should be given in minute doses, highly diluted, and very frequently to imitate nature's method of delivering it to the cells in minute amounts all the time. This method has been tried with apparent benefit, and might tide the organism over the period during which it is building up its nervous control over the metabolism of the sugars. It is possibly the only disease in which alcohol can rationally be given as a food, now that there is such a reaction against giving it in conditions formerly considered essentially in need of alcohol. It is one way at least of saving the oxidation of proteids at a time when they are needed so badly and likely to be burned up.

**Exophthalmic Goitre:** James Tyson, in the *New York Medical Journal* for March 17th, states that at best the medical treatment of exophthalmic goitre is unsatisfactory. If as seemed probable, the disease was due to a deranged secretion of the thyroid gland, experience with analogous diseases suggested the possibility of the discovery of an antitoxin which would counteract the symptoms. In the treatment, patients should have rest and protection from excitement. In mild cases of short duration, this alone might effect a cure. Alcoholic stimulants, and stimulating indigestible foods are contraindicated. The food, however, should be

nourishing. Sexual indulgence should be forbidden. The bromids and digitalis should be given in moderate doses at first; indeed massive doses are contraindicated, and if the tachycardia does not subside under moderate doses of digitalis, or strophanthus, they should be discontinued. Ten to 15 minims of the new tincture three, or at most, four times a day, should not be exceeded. Of the bromids 15 grains four times a day is considered the maximum dose. He has found veratrum viride in lieu of digitalis to act well in conjunction with the bromids; in like manner aconite might be expected to be of service where there was strong cardiac action. He has had no experience with ergot. Belladonna is useful in certain cardiac cases and he especially advocated the use of a fresh belladonna plaster, over the region of the heart. William H. Thompson insists upon the absolute restriction to a milk diet for two years. James C. Wilson recommends suprarenal extract in tablet form five grains at a dose. Thymus extract has seemed to be beneficial in 10 to 15 grain doses. Nux vomica seems to possess some efficacy.

### Adrenalin:

In *Medicine* for April, A. Ravogli, (from *Lancet Clinic*) asserts that adrenalin applied to the healthy epidermis has no effect, as there is no absorption. When the surface is excoriated or there are abrasions, the skin around the excoriation becomes white in small patches which gradually coalesce, forming large white surfaces. The action of the adrenalin is not limited to the blood-vessels alone, but it contracts the nonstriated muscles of the skin. Its effects are noted within one or two minutes after the application, and they remain from one to three hours. Under the influence of adrenalin the circulation is diminished, and there is no secondary hyperemia such as there is after the use of an ethyl chlorid spray. In cases of rosacea and vascular naevi, adrenalin may be employed after sacrificing the surface. Adrenalin has been employed in burns of the second degree in the form of compresses. A burn treated in this way becomes pale and does not form blisters. In acute dermatitis without oozing or blisters, painting with a solution of adrenalin relieves the itching and the burning, leaving only a slight feeling of distention. Adrenalin has been found useful in urticaria, employing the catabolic action of the electric current. A similar method makes it useful in acute edema and in dermatitis herepetiformis. Adrenalin is a useful application in redness and pruritus of the vagina. Baum uses adrenalin solution in the treatment of rosacea, introducing it into the skin through scratches of the epidermis made by rubbing it with sandpaper. He claims that in this way the blood-vessels are made more distinct, and are more easily severed. Ravogli's method is to wash the parts with a two per cent carbolic acid solution and then spray them with ethyl chlorid after which the vessels are cut through. The blood is allowed to flow for a while, after which the surface is washed with an antiseptic solution and covered for five minutes with lint saturated with adrenalin. The surface becomes anemic but gradually the red returns but not to same degree.

### Rheumatism:

John V. Shoemaker, in the *Medical Bulletin* for March, condemns the use of synthetic salicylic acid and all other coal-tar preparations in the treatment of acute articular rheumatism. At the present day, salicylic acid and its sodium salt, have largely superceeded the natural neutral glucosid, salicin, in our practice,



but he is of the opinion that the latter is more readily accepted by the stomach, and is less irritating to the digestive organs and has not the depressing effect upon the heart of salicylic acid.

Whereas many cases cannot take salicylic acid on account of its action upon the stomach and nervous system, and the eruption upon skin, he has not yet seen a case in which any of these accidents followed the use of salicin. In his opinion salicin bears to acute rheumatism very much the same relation that quinin does to malaria. In other words that its action entitles it to be regarded as possessing a special therapeutic relation to the disease. As regards accessory treatment he has found the alkalies very useful. Those which at the same time exert a diuretic action like the citrates and acetates are to be preferred. He especially names the citrate of potash, and the solution of acetate of ammonia. Since there occurs in acute rheumatism a rapid loss of red blood corpuscles and destruction of hemoglobin some chalybeate will generally be required. He is strongly opposed to the use of antipyretics, especially the coal-tar derivatives. In ordinary cases no febrifuge treatment is required other than the neutral mixture, effervescing draught, or Basham's mixture. When the temperature remains above 103 degrees there is danger of the development of cerebral rheumatism, and cold affusions, or the cold bath has given him the best results, saving some apparently hopeless cases.

### Belladonna:

In the *American Journal of the Medical Sciences* for April, C. M. Dorland reports three cases of belladonna poisoning due to the wearing of belladonna plasters. He states that scant consideration is given this subject by text-books on therapeutics and practice of medicine, but it is a subject of practical importance, owing to the common use of belladonna plasters. As these plasters are so often applied by the patient on his own initiative, serious symptoms of poisoning may develop before he comes under medical care as in the first case reported, and even then the history may be such that no mention is made of the use of the plaster. As atropin is so rapidly eliminated the removal of the belladonna plaster will probably be rapidly followed by a cessation of symptoms in most cases, and any further treatment would consist in the administration of the physiological antidotes of atropin.

### Antitoxin:

*American Medicine*, cites C. G. Roehr (*Chicago Medical Record*), as stating that the disagreeable results following the use of antitoxin are, susceptibility to another attack and edema, urticaria, and arthritis. By the use of antitoxin, we prevent the system forming its own antitoxin and hence do not gain a permanent immunity. This can be avoided by using the antitoxin in small but repeated doses, enough to check, but not abort the disease. The urticaria, edema, or arthritis may be surely prevented by giving the patient large doses of potassium acetate well diluted, and securing free action of the bowels with low diet. According to the amount of antitoxin used, from 0.3 grams to 2 grams (5 grains to 30 grains) of potassium acetate are given in a glass of water every hour for two to six days or longer. By this method all disagreeable symptoms may be avoided. The action is explained by the remedy favoring elimination which has been overtaxed by the foreign serum.

## Academy of Medicine of Cleveland

The thirty-seventh regular meeting of the Academy was held at 8 p. m., Friday, April 20th, 1906, in the Assembly Room, Hollenden Hotel. Program—Muscle and Tendon Transference and the Relation of General to Orthopedic Surgery, Dr E. H. Bradford, Boston Mass.; Discussion was opened by Dr Dudley P. Allen.

CLYDE E. FORD, M. D.,  
Secretary.

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### CLINICAL AND PATHOLOGICAL SECTION

The thirty-third regular meeting of this Section was held Friday, April 6th, at 8 p. m., at the Cleveland Medical Library. Program—Icterus and Secondary Syphilis, Dr A. W. Lueke; Cases of Obstruction of the Common Duct, Dr F. C. Herrick; Mongolian Imbecility, Dr E. F. Cushing; Extreme Gastro Intestinal Case with interesting Kidney and other Complications, Operation, Recovery, Dr N. Stone Scott; The Exhibition of Spirochaeta Pallida on Smear Preparations and in the Tissues, from a case of Congenital Syphilis, Dr Oscar T. Schultz.

JUNIUS H. MCHENRY, M. D.,  
Secretary.

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## German Medical Society

The 129th regular meeting of this Society was held at 8:30 p. m. at 1006 Rose Building on Tuesday, March 6th. Program—Infantile Paralysis, Dr E. Rosenberg; Recent Advances in Medicine, Dr M. Kahn.

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The 130th regular meeting was held at 8:30 p. m., 1006 Rose Building on March 20th. Program—Report of a Case of Pernicious Anaemia, by Dr M. Metzenbaum; Icterus Gravis, with pathological specimens, Dr A. W. Luecke.

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The 132nd regular meeting of this Society was held at 8.30 p. m. on Tuesday, April 3rd, at 1006 Rose Building. Program—General Anesthesia, Dr M. Metzenbaum; Local Anesthesia, Dr W. G. Stern.

W. E. SAMPLINER, M. D.  
Secretary.

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## Alumni Association of St. Alexis Hospital

The forty-first regular meeting of the St. Alexis Hospital Alumni Association was held at the Hollenden Hotel on Thursday, April 5th, 8 p. m. Papers—Certain Abuses Relating to the Practice of Medicine, that Call for Remedy, Robert J. Lawlor, M. D.; Reports of Cases with Pathological Findings, Ben Peskind, M. D.

MYRON METZENBAUM,  
1242 Willson Ave.,  
Secretary.

## Program of the Sixty-first Annual Meeting of the Ohio State Medical Association

MAY 9, 10 AND 11, 1906, CANTON, OHIO

### COMMITTEE ON ARRANGEMENTS.

A. B. Walker, President Stark County Medical Society, Chariman.

### COMMITTEES.

Reception—E. P. Morrow, Canton; W. O. Baker, Louisville; Katherine Burns, Canton; T. J. Reed, Massillon; W. R. Spratt, Malvern; J. H. Tressell, Alliance.

Accommodation—E. O. Morrow, Canton; W. C. Steele, New Berlin; E. D. Brant, Canton; M. C. Foulks, Canton.

Entertainment—H. A. March, Canton; S. B. Dudley, Canton; E. S. Folk, Canton.

Publication—J. F. Kahler, Canton; G. F. Zinninger, Canton; F. W. Gavin, Canton.

Information and Registration—J. P. DeWitt, Canton; F. P. Calhoun, Canton; W. S. Foulks, Canton; J. H. Beatty, Canton; L. A. Buchman, Pierce.

Exhibits—H. M. Schuffell, Canton; F. DaHinden, Canton; G. A. Kelley, Canton; L. E. Flickinger, Canton; W. A. McConkey, Canton.

Badges—C. E. Schilling, Canton; F. E. Hart, Canton; L. D. Stoner, Canton.

Entertainment of Visiting Ladies—A. C. Brant, Canton; J. F. Marchand, Canton; H. C. Eyman, Massillon.

Transportation—S. B. Post, Canton; R. J. Pumphreys, Massillon; H. W. Faulk, Canton.

Finance—C. A. Crane, Canton; N. W. Culbertson, Massillon; C. S. Hoover, Alliance; G. C. Hamilton, Louisville; D. F. Banker, Canton.

Assistant Secretaries—G. F. Zinninger, Canton; F. W. Gavin, Canton.

### RAILROAD RATES.

Under the provisions of the new law of Ohio, the rate from all points in Ohio will be two cents per mile. This rate is the same as for former meetings, and does away with the inconvenience of the certificate plan.

### REGISTRATION.

Each member in attendance shall enter his name on a registration card, indicating the component Society of which he is a member. When his right to membership has been verified he shall receive a badge, which shall be evidence of his right to all privileges of this session. No member or delegate shall take part in any of the proceedings of this session until he has complied with these provisions. Only bonafide members will be admitted to entertainments.

### PAPERS

No address or paper before the Association, except those of the President and Orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor, except by unanimous consent, more than once on any subject.

All papers read before the Association shall be its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.



## TRAIN SCHEDULE.

PENNSYLVANIA LINES—Arrive from Cincinnati, Hamilton, Dayton, Springfield, Columbus, Urbana, Piqua, Sidney, Marion, Kenton, Circleville, Ironton, Lima, Portsmouth, Lancaster, Gallipolis, Mt. Vernon, Van Wert, Findlay, Fostoria, Toledo, Tiffin, Galion, Bucyrus, Mansfield, Ashland 2:44 a. m., 5:21 a. m., 8:05 a. m., 1:06 p. m., 5:32 p. m., 5:47 p. m., 8:30 p. m., 8:59 p. m. Leave for above points 6:07 a. m., 9:38 a. m., 10:11 a. m., 2:19 p. m., 5:24 p. m., 9:50 p. m., 11:45 p. m.

Arrive from Steubenville, East Liverpool, Wellsville, Youngstown, Niles, Ashtabula, Ravenna, Warren, Lisbon and Salem. 6:07 a. m., 9:38 a. m., 10:11 a. m., 2:19 p. m., 5:24 p. m., 9:50 p. m., 11:45 p. m. Leave for above points 2:44 a. m., 5:21 a. m., 8:05 a. m., 1:06 p. m., 5:32 p. m., 5:47 p. m., 8:30 p. m., 8:59 p. m.

W. & L. E. R. R.—Arrive from Zanesville and Carrollton 6:45 a. m., 10:25 a. m. Leave for Zanesville and Carrollton 6:05 a. m. and 6:10 p. m. Arrive from Cleveland and Kent 9:10 a. m., 5:55 p. m., 8:05 p. m. Leave for Cleveland and Kent 7:00 a. m., 10:25 a. m., 7:13 p. m.

B. & O. R. R.—Arrive from Marietta and Cambridge 11:45 a. m. Leave for Marietta and Cambridge 12:40 p. m. Arrive from Cleveland and Akron 9:25 a. m., 12:40 p. m. 6:45 p. m., 9:35 p. m. Leave for Cleveland and Akron 5:45 a. m., 8:07 a. m., 10:45 a. m., 4:05 p. m.

## ELECTRIC LINES.

This city can be reached every hour, from 6 a. m. to 10:30 p. m., from points as far north as Cleveland, Toledo and intermediate connections; as far east as Salem; as far south as Canal Dover, New Comerstown, New Philadelphia, etc.

## HOTELS.

Courtland, West Tuscarawas St., \$2.50 to \$5.00, American.  
 McKinley, South Market St., \$2.50 to \$5.00, American.  
 Barnett, Cherry and Tuscarawas Sts., \$2.00 to \$2.50 American.  
 Conrad, North Market St., \$1.50 American.  
 Melbourn, West Tuscarawas St., \$1.25, American.  
 Williams, North Market St., \$1.60, American.  
 St. Edwards, North Market St., 50c to \$1.00, European.

## THE PROGRAM.

GENERAL MEETINGS—MEDICAL AND SURGICAL SECTIONS—HOUSE OF DELEGATES—EXHIBITS—ALL AT THE AUDITORIUM.

*Wednesday Morning, May 9—Meeting of the House of Delegates.*

Call to order 10:30 a. m.

Miscellaneous Business.

Nomination and Election of Nominating Committee.

Reports of Officers.

Reports of Committees.

*Wednesday Afternoon, May 9—General Meeting.*

Call to order at 1:30 p. m.

## REPORT OF COMMITTEE ON ARRANGEMENTS.

Address of Welcome—Hon. Arthur R. Turnbull, Mayor of Canton.

On Behalf of the Profession of Stark County—J. F. Marchand, Canton.

Report of the President—Thomas Charles Martin, Cleveland.

Addison's Disease, Report of Two Cases—Geo. F. Zinninger, Canton, Stark County Medical Society.

The Medical Inspection of Public Schools as a Factor in the Prevention of Disease—S. O. Barkhurst, Steubenville, Jefferson County Medical Society.

Our School Girl from a Hygienic Standpoint—James Fraunfelter, Canton, Stark County Medical Society.

Collective Investigation on Pneumonia—Joseph Eichberg, Cincinnati, Academy of Medicine of Cincinnati.

Pneumonia—R. R. Alwood, Montpelier, Williams County Medical Society.

Syphilis in Relation to Crime—A. Ravogli, Cincinnati, Academy of Medicine of Cincinnati.

Syphilis—F. A. Hartley, Byhalia, Union County Medical Society.

Notes on the Practice of Medicine—E. Briggs, Wilmington, Clinton County Medical Society.

Calomel—J. H. Ray, Coalton, Jackson County Medical Society.

Advances in Diabetic Therapy—L. A. Levison, Toledo, Academy of Medicine of Toledo and Lucas County.

The Pulse in Disease and Therapeutics—John B. Ballinger, Webster, Darke County Medical Society.

*Wednesday Evening, May 9—Meeting of House of Delegates.*

Call to order at 8:00 p. m.

Reports of Councilors.

Miscellaneous Business.

*Thursday Morning, May 10—Medical Section.*

Call to order at 9:00 a. m.

Treatment of Pulmonary Tuberculosis in Private Practice—J. P. DeWitt, Canton, Stark County Medical Society.

Tuberculosis—F. S. Baron, Zanesville, Muskingum County Medical Society.

Physical Exercise in Lung Tuberculosis—C. G. Randall, Harveysburg, Warren County Medical Society.

Lung Tenderness—A Symptom of Value in the Diagnosis of Pulmonary Tuberculosis, Samuel Iglaur, Cincinnati, Academy of Medicine of Cincinnati.

Hysteria with the Report of a Case—E. M. Huston, Dayton, Montgomery County Medical Society.

The Leucocytes as an aid in Diagnosis, R. P. Daniels, Toledo, Academy of Medicine of Toledo and Lucas County.

Some Further Observations on the Pathology of the General Paralysis of the Insane—John D. O'Brien, Massillon, Stark County Medical Society.

Chronic Headaches—J. A. Thompson, Cincinnati, Academy of Medicine of Cincinnati.

Diagnostic Value of Pain—H. R. Geyer, Zanesville, Muskingum County Medical Society.

*Thursday Morning, May 10—Surgical Section.*

Call to order at 9:00 a. m.

Chronic Constipation—A Surgical Disease—D. M. Roberts, New Richmond, Clermont County Medical Society.

Surgical Treatment of Intestinal Indigestion—Earl Harlan, Cincinnati, Academy of Medicine of Cincinnati.

Treatment of Acute Intestinal Obstruction by Minimum Surgical Procedure—H. J. Whitacre, Cincinnati, Academy of Medicine of Cincinnati.

The Treatment of Appendicitis in Private Practice—Van N. Marsh, Flushing, Belmont County Medical Society.

The Trend of the Times in Appendectomy—N. Stone Scott, Cleveland, Academy of Medicine of Cleveland.

Intra-Peritoneal Tuberculosis—F. F. Lawrence, Columbus, Columbus Academy of Medicine.

The Management of Pregnancy and Labor with Special Reference to the Importance of Ante-Partum Examination—Andrews Rodgers, West Jefferson, Madison County Medical Society.

Puerperal Eclampsia—L. A. Yocum, Wooster, Wayne County Medical Society.

Some Experiences in the Diagnosis and Surgical Treatment of Prostatic Diseases—J. H. Jacobson, Toledo, Academy of Medicine of Toledo and Lucas County.

Surgery of the Cervical Lymph Nodes—Robert Carothers, Cincinnati, Academy of Medicine of Cincinnati.

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*Thursday Afternoon, May 10—Meeting of House of Delegates.*

Call to order 1:00 p. m.

Report of Nominating Committee and Election of Officers and Committees.

Selection of Place of Meeting.

Miscellaneous Business.

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*Thursday Afternoon, May 10—General Meeting.*

Call to order at 2:30 p. m.

THE ADDRESS IN SURGERY

The Etiology of Cancer—Harvey Gaylord, Buffalo, New York.

SYMPOSIUM ON CANCER

Cancer of the Head and Neck—Geo. W. Crile, Cleveland, Academy of Medicine of Cleveland.

To open the discussion—Charles S. Hamilton, Columbus, Columbus Academy of Medicine.

Cancer of the Stomach—Joseph Ransohoff, Cincinnati, Academy of Medicine of Cincinnati.

To open the discussion—M. Stamm, Fremont, Sandusky County Medical Society.

Cancer of Uterus—J. F. Baldwin, Columbus, Columbus Academy of Medicine.

To open the discussion—Wm. J. Gillette, Toledo, Academy of Medicine of Toledo and Lucas County.



Skepticism in Medicine—S. P. Wise, Millersburg, Holmes County Medical Society.

A Delicate Subject—Charles H. Cushing, Elyria, Lorain County Medical Society.

Physicians' Local Protective Associations—E. D. Helfrich, Galion, Crawford County Medical Society.

Purulent Ophthalmia—Chas. Lukens, Toledo, Academy of Medicine of Toledo and Lucas County.

Medicine and Philosophy—C. M. Wamzer, Urbana, Champaign County Medical Society.

The Campaign of Education on the Use of Patent Medicines—Hugh F. Lorimer, Jamestown, Green County Medical Society.

*Thursday Evening, 7:30 p. m., May 10—The Address in Medicine.*

Intestinal Intoxication—John C. Hemmeter, Baltimore, Md.

9:00 p. m. The Annual Banquet at the Courtland.

*Friday Morning, May 11—Medical Section.*

Call to order at 9:00 a. m.

The Relation of Heart Disease to Kidney Disease—John M. Burns, Mansfield, Richland County Medical Society.

The Role of the Mosquito in the Etiology of Fevers—J. C. Larkin, Hillsboro, Highland County Medical Society.

Clinical Observations Concerning Enlargements of the Liver—H. W. Bettman, Cincinnati, Academy of Medicine of Cincinnati.

Some Problems of the Health Office—S. E. Allen, Cincinnati, Academy of Medicine of Cincinnati.

Prophylaxis—F. L. Gage, Delaware, Delaware County Medical Society.

Diseases of the Aortic Ring—John E. Griewe, Cincinnati, Academy of Medicine of Cincinnati.

Fistula in Ano—With Special Reference to Tuberculosis—G. B. Evans, Dayton, Montgomery County Medical Society.

The Metaphysics of Medicine—Shelby Mumaugh, Lima, Allen County Medical Society.

*Friday Morning, May 11—Surgical Section.*

Call to order, 9:00 a. m.

Concerning the Final Results from the Lorenz Operation for the Bloodless Reduction of Congenital Hip Dislocation—Walter G. Stern, Cleveland, Academy of Medicine of Cleveland.

Report of a Case of Extra-Uterine Gestation at Eight Months—Operation—A Living Child Weighing Three Pounds Delivered—H. T. Sutton, Zanesville, Muskingum County Medical Society.

Abdominal Operations and Subsequent Inflammatory Processes in the Lungs—Hunter Robb, Cleveland, Academy of Medicine of Cleveland.

A Problem in the Etiology of Oesophageal Carcinoma—N. Worth Brown, Toledo, Academy of Medicine of Toledo and Lucas County.

Cancer of the Cervix—Choice of Operation—M. A. Tate, Cincinnati, Academy of Medicine of Cincinnati.

Normal Saline Solution in Abdominal Operations—Wm. H. Humiston, Cleveland, Academy of Medicine of Cleveland.

The Application of Therapeutic Exercises in Lateral Curvature—Henry O. Feiss, Cleveland, Academy of Medicine of Cleveland.

Lymphatics in Malignancy—S. D. Foster, Toledo, Academy of Medicine of Toledo and Lucas County.

Penetrating Wounds of the Thorax—E. O. Smith, Cincinnati, Academy of Medicine of Cincinnati.

The Drop Method of Administering Ether in Anesthesia—M. Metzbaum, Cleveland, Academy of Medicine of Cleveland.

On the Diagnosis and Treatment of Ulcer of the Stomach—J. Henry Schroeder, Cincinnati, Academy of Medicine of Cincinnati.

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## Eye, Ear, Nose and Throat Surgeons, Canton, Ohio, May 9, 1906

In the past but few papers have been presented before the meetings of the State Medical Association on eye, ear, nose or throat subjects. Since the papers had to be of a general nature, they did not attract many specialists to the meeting, and their reception by the members of the society was usually not very enthusiastic. The Ohio State Medical Association states that its first purpose is to federate and bring into one compact organization the entire medical profession of the State. The eye, ear, nose and throat man wishes to attend the State meetings along with his brother who practices in the broader fields of medicine and surgery, not only in order that he may be benefited by striking hands and comparing ideas with others in his work, but also that he may attend the medical and surgical sections. Attendance at national meetings of specialists in distant cities is expensive and takes much time.

Men interested in Pediatrics and Dermatology wish to attend also the general sessions on the days following their meeting. If they met at the same time they could not attend both meetings. The desire to listen to special papers on eye, ear, nose and throat subjects is not so strong as to detract many practitioners from the general sessions. Of course, a part of the program each year will be made especially attractive for those men doing general practice, but who are interested in these specialties. The general consensus of opinion seems to be that there will be a much larger attendance if the meeting is held on the first, and possibly also on the second day of the regular meeting (Canton May 9 and 10), as the *men* from distant parts are more likely to come when they can travel with friends from their own town to the regular meeting and enjoy the same social entertainments with them. It is expected that these meetings will be well attended, bringing another large body of practitioners to the support of the State Medical Association, but few of whom have been present in the past.

Julius King Optical Co., Cleveland, and McIntire, Magee & Brown Co., Philadelphia, will make ethical exhibits of the latest optical instruments, appliances, guards, etc., and there will also be a fine exhibit of eye, ear, nose and throat surgical instruments.

The meeting will be called to order in one of the fine dining rooms of the Courtland Hotel, one of the best in the State, at 9:30 a. m., Wednesday, May 9.

The program was printed in the April issue.

## Ohio State Dermatologic Society

Following the precedent of the Ohio Pediatric Society, which has held large, interesting and well-attended sessions once a year, one day prior, but at the same place of meeting of the Ohio State Association, for the past several years, the Ohio Dermatologic Society, is preparing to successfully launch itself next May at Canton. There is a demand on the part of the Profession for such an organization, for the purpose of self-improvement along a line of work of considerable general interest, and in which early medical training in past years was somewhat neglected. The papers to be presented are intended to possess general interest and broad scope. The work will be supplemented with lantern demonstrations, the use of which will be freely encouraged, in order to render it as interesting and instructive as possible. An effort will also be made to gather together clinical material in every locality in which the meetings are held, not only for the purpose of elucidating rare and puzzling cases, but also for the practical and instructive as well as scientific interest.

It is the object of the society to eventually meet conjointly with the Ohio State Association, and, if practical, become an affiliated body, but the first meeting will be held on the day previous to the meeting of the State Association in Canton, May 8th. The following preliminary program is announced:

S. J. Wright, M. D., Akron—Psoriasis, with an Unusual Case.

W. J. Lefever, M. D., Cleveland—Diseases of the Scalp Affecting the Hair.

Charles J. Shepherd, M. D., Columbus, O.—Blastomycosis, with a Report of a Case.

A. E. H. Maerker, M. D., Napoleon, O.—The Treatment of Varicose Ulcer.

M. L. Heidingsfeld, M. D., Cincinnati—Some Clinical and Pathological Conditions of Skin Cancer, from Lantern Demonstrations.

Pearl Hahn, M. D., Cleveland—Pruritus.

H. B. Kurtz, M. D., Cleveland—Herpes.

James S. McClelland, M. D., Bellaire—Report of a Case of Lupus, Cured by X-Ray.

E. O. Smith, Cincinnati—The Injection Treatment of Syphilis.

The following have signified their intention to contribute papers, but will announce the titles later: Leo Reich, M. D., Cleveland; A. Ravogli, M. D., Cincinnati; C. T. Pearce, M. D., Cincinnati; E. B. Tauber, M. D., Cincinnati; E. Shields, M. D., Cincinnati; R. C. Kinnaman, M. D., Ashland; F. Young, M. D., Marion; F. W. Firmin, M. D., Findlay; J. C. Larkin, M. D., Hillsboro; C. M. Alford, M. D., Lancaster; J. H. Steele, M. D. Guysville.

The prospective membership list embraces over 200 names. Those who are desirous of contributing to the program by presenting papers, case reports, or exhibiting patients, photographs or specimens, or of becoming active members, kindly send their names, with one dollar to defray the expense of effecting the organization, and the conduction of the initial meeting, to Dr. M. L. Heidingsfeld, 19 West Seventh street, Cincinnati.

The Courtland Hotel will be the headquarters of the Society and its sessions will be held in the assembly room of that hotel.



### Resolutions adopted by the Cincinnati Academy of Medicine

*Resolved*, That the Cincinnati Academy of Medicine, for the Christian Science Amendment lost recently in our State Senate, commend our Senator Espy and others for work done in behalf of the medical profession of the State of Ohio. Be it further

*Resolved*, That the Cincinnati Academy of Medicine hereby declares Senators Howe, Schmidt and Williams, of Cuyahoga County; Lauman, of Scioto County; Ross, of Washington County; Duvall, of Jefferson County; Hafner, Harper and Hunt, of Hamilton County; Pollock, of Stark County; and Mayor Tom L. Johnson, of Cleveland, who urged the passage of the Christian Science Amendment, as persons unworthy of confidence in matters concerning public health. And be it further

*Resolved*, That a copy of these resolutions be published in the medical journals of the State.

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### Resolutions adopted by the Columbus Academy of Medicine

*Whereas*, The Christian Science Amendment to the Medical Practice Act, recently offered to the Ohio Legislature, which was designed to grant authority to so-called "healers" to practice the healing art without qualifying before the State Board of Medical Examination and Registration, as do all other candidates, and without show of constitutional right or evidence that they are competent to recognize communicable disease, and

*Whereas*, Such grant to practice Medicine is inimical to the public health therefore be it

*Resolved*, That the Academy of Medicine hereby declare Senators Lauman of Scioto County, Rose of Washington County, Duvall of Jefferson County, Harper and Hunt of Hamilton County, Pollock of Stark County, Howe Schmidt and Williams of Cuyahoga County, and Mayor Tom L. Johnson of Cleveland, who urged the passage of the Christian Science amendment, unworthy of confidence in matters of public health, and be it further

*Resolved*, That these resolutions be offered for publication in the Medical press.

D. N. KINSMAN  
YEATMAN WARDLOW  
W. D. DEUSCHLE  
Com. on Legislation.

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### Book Reviews

Christianity and Sex Problems, by Hugh Northcote, M. A. Crown Octavo, 257 Pages. Bound in Extra Cloth. Price, \$2.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Under the above title, the author has attempted a critical analysis of a most difficult subject, and one which requires a keen philosophical judgment, as well as great tact in its treatment. It is evident that the purpose of the author is to show us a way to solve much that is difficult in dealing with the development of the sex in the growing individual. In a measure he has succeeded admirably, though in our judgment, there

are many parts of this work which might better be left unwritten. To any one at all familiar with the work of Havelock Ellis, and to all students of psychology, especially of the psychology of the sexes, this volume will be of great interest and undoubtedly of some value.

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The Influence of the Menstrual Function on Certain Diseases of the Skin, by L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital, Consulting Physician to the New York Hospital, Consulting Dermatologist to the Randall's Island Hospitals, to the Manhattan Eye and Ear Hospital, and to the Hospital for Ruptured and Crippled, etc. New York, Rebman Company, 1123 Broadway. 1906.

In this monograph, Dr Bulkley considers in detail the association between menstruation and certain changes in the individual, giving a most interesting analysis of the plausible theories, and concluding with an instructive chapter devoted to treatment. In his summary it is interesting to note that he considers local gynecological treatment even least important and that effective treatment must be based on broad medical principles. This is a monograph which can be recommended to the general physician as well as to the specialist.

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Le Fevre's Diagnosis. A Manual of Physical Diagnosis, including Diseases of the Thoracic and Abdominal Organs. For students and Physicians. By Egbert LeFevre, M. D., Professor of Clinical Medicine and Therapeutics in the University and Bellevue Hospital Medical College, Attending Physician to Bellevue Hospital and to St. Luke's Hospital, New York. New (2d) edition, thoroughly revised and much enlarged. In one 12mo volume of 479 pages with 102 engravings and 6 full page plates in black and colors. Cloth, \$2.25, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

We have already reviewed the first edition of Dr LeFevre's work upon physical diagnosis. That the volume has found favor is evident from the demand, within so short a time after the appearance of the work, for the second edition. Its general arrangement and classifications are excellent and it can safely be followed as a guide in practical teaching work. In this edition, De LeFevre has included a very valuable chapter devoted to topographical and relational anatomy. His example in this regard might well be followed in other text-books upon the same subject. The chapter devoted to the examination by the X-ray is extremely satisfactory. As a guide to physical diagnosis, we are glad to recommend this work.

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A Manual of Acute Poisoning, giving Classification, Varieties and Individual substances usually met with in Emergency Poisoning with special symptoms, simple tests, chemical antidotes, physiologic Antagonists and treatment, together with methods for use in First Aid to the Injured. By John W. Wainwright, M. D., member of the American and New York State Medical Association, The American Chemical Society, etc. New York. E. R. Pelton. 1905.

This little volume by Dr Wainwright gives in a most concise and satisfactory way, the treatment for acute poisoning in accidents resulting from the use of corrosives, minerals, neutral salts, vegetables and narcotics and includes a short chapter devoted to first aid to the injured. Its value is considerably enhanced by the addition of an exhaustive index which makes it possible to find in an instant the best method of treatment in any given case, provided the nature of the poison used is known.

- On the Relations of Diseases of the Skin to Internal Disorders, with observations on Diet, Hygiene and General Therapeutics, by L. Duncan Bulkley, A. M., M. D., Physician to the New York Skin and Cancer Hospital, Consulting Physician to the New York Hospital, Consulting Dermatologist to the Randall's Island Hospitals, to the Manhattan Eye and Ear Hospital, and to the Hospital for Ruptured and Crippled, etc. Rebman Company, New York, 1123 Broadway. 1906.

This volume consists essentially of the lectures delivered by the author at the New York Skin and Cancer Hospital in March, 1905. It is a curious fact that of all the branches of medicine that, of dermatology seems to be the least understood by physicians generally, and its importance, even, is least appreciated. In the publication of these brief lectures, Dr Bulkley has rendered a distinct service to the profession, as well as to the specialist. We are often too ready to consider the lesion upon the surface of the body as an insignificant trivial affair rather and to turn to the specialist for treatment by local applications, when in reality it is in a very large percentage of instances the expression only of a very much more subtle disorder.

In these lectures, the author makes clear the association between many functional disorders and certain diseases of the skin. The volume is one which can be read with profit by every physician as well as specialist.

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Diet in Health and Disease, by Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, and John Ruhrah, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons. W. B. Saunders & Co., Philadelphia, New York and London. 1905.

This work upon Diet in Health and Disease appeared during 1905.

Among the works devoted to this subject we know of no single volume which takes up the discussion of this all important topic in quite the same systematic way, as has been done by these authors. The book has been prepared to meet the demands of the general practitioner, as well as the student and in this the authors have succeeded admirably. The volume considers systematically chemical and physiological digestion, the classes of foods, the value of beverages and stimulants, and all the various outside factors bearing upon the value of diets, infant feeding, diets under special conditions and diets in disease, including also the dietaries of a large number of Hospitals and public Institutions. The classification and arrangement of the text is excellent. The distinct headings make the work an easy one to turn to for reference and the value of the sick-room recipes given, can only be really appreciated after an effort to find anything like similar help in a search through a number of other text-books upon the subject.

The work represents an immense amount of labor and the authors are to be congratulated in their success and must rest assured that their work has not been in vain. We recommend this volume to every student and physician.



## Books Received

Nineteenth Annual Report of the State Board of Health of the State of Ohio for the year ending December 31, 1904.

Annual Report of the Surgeon-General of the Public Health and Marine-Hospital Service of the United States, for the fiscal year 1905.

Medical and Surgical Report of St. Lukes Hospital, year ending September 30, 1905. Chicago, Ill.

Progressive Medicine, Vol. 1, March, 1906. A quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 403 pages, with 7 engravings. Lea Brothers & Co. Phila. New York.

Nursing Ethics: for Hospital and Private Use, by Isabel Hampton Robb, Graduate of the New York Training School for Nurses attached to Bellevue Hospital; late Superintendent of Nurses and Principal of the Training School for Nurses, John Hopkins Hospital, Baltimore, Md.; late Superintendent of Nurses, Illinois Training School for Nurses, Chicago, Ill.; Member of the Board of Lady Managers, The Lakeside Hospital, Cleveland, O.; Honorary Member of the Matrons' Council, London, England. In one volume of 273 pages. Size 5 x 7½ inches. Price \$1.50 Bound in Cloth. Sent post-paid on receipt of price by E. C. Koeckert, Pub., 715 Rose Building, Cleveland, O.

The Medical Diseases of Infancy and Childhood, with points on the anatomy, physiology, and hygiene peculiar to the developing period, by Alfred Cleveland Cotton, A. M., M. D., Professor of Pediatrics Rush Medical College, University of Chicago; Attending Physician for Diseases of Children Presbyterian Hospital; Consultant to the Central Free Dispensary, etc., etc. Formerly Physician-in-charge of the Chicago Isolation Hospital and of the Infectious Disease Wards of the County Hospital. Member of the XIII International Medical Congress, Moscow. Honorary Member of the Societe d'Hygiene, Paris, etc.

Ellis's Demonstrations of Anatomy, being a Guide to the Knowledge of the Human Body by Dissection, twelfth edition. Revised and edited by Christopher Addison, M. D., B. S., (Lond.) F. R. C. S., Lecturer on Anatomy, Charing Cross Hospital, Medical School; Formerly Hunterian Professor, Royal College of Surgeons, England; Examiner in Anatomy, Royal College of Surgeons, England, Etc. Illustrated by 306 engravings on wood, of which 75 are in color. New York. William Wood and Company. 1906.

The Examination of the Function of the Intestines by Means of the Test-Diet. Its application in medical practice and its diagnostic and Therapeutic value. By Prof. Dr Adolph Schmidt, Physician-in-chief of the City Hospital Friedrichstadt in Dresden. Authorized Translation from the latest German Edition, by Charles D. Aaron, M. D., Professor of Diseases of the Stomach and Intestines in the Detroit Post-Graduate School of Medicine; Clinical Professor of Gastro-enterology in the Detroit College of Medicine; Consulting Gastro-enterologist to Harper Hospital, etc. With a frontispiece Plate in Colors. Price \$1.00, net. F. A. Davis Company, Publishers, Philadelphia.

## New Books in Cleveland Medical Library

## BY PURCHASE

R. Jardine, M. D., *Clinical Obstetrics*; A. Chauveau, M. D., *Comparative anatomy of the domesticated animals*; Bohm & von Davidoff, *Text-book of histology*; Dr Hermann Sahli, *Diagnostic methods*; *Progressive Medicine* for December 1905, March, 1906.

## BY DONATION

Dr D. H. Beckwith—75 volumes, various. Board of Health Reports; Society Transactions, etc.

Dr E. P. Carter—Volumes of medical works as follows: Nissen, *Practical Massage*; French, *Practice of Medicine*; Pedersen, *Clinical Diagnosis*; Pedersen, *Practice of Medicine*; Prentice, *Eye, Mind, Matter*; J. J. Reese, M. D., *Medical Jurisprudence and Toxicology*; W. T. & C. B. Eckley, *Dissection and Practical Anatomy*; H. R. Bigelow, *Electro-Therapeutics*; Brower-Bannister, *Manuel of Insanity*; C. L. Dana, *Nervous Diseases*; *Transactions Lackawanna Medical Society*, 1905; *Progressive Medicine*, March, June, September, 1902. September, 1903; E. LeFevre, *Physical Diagnosis*; L. D. Bulkley, *Skin Diseases and Internal Disorders*; *Practical Medicine series year books*, Vols. 1 and 10, 1902, *General Medicine*; *Venereal, Nervous and Mental Disease*; C. G. L. Wolf, *Urine Analysis*; E. H. Pratt, *The Composite Man*; *Transaction Luzerne Co. Medical Society*, 1905; *Gray's Anatomy*, 1905.

Dr C. A. Hamann—*Journal of Medical Research*. Nov., 1905, Aug., 1905, Jan., 1906; *Anatomischer Anzeiger*, 7 numbers; *American Journal of Anatomy*, 4 numbers; *Zentralblatt fur Normale Anatomie*, etc., 8 numbers; *Transactions National Association for the Study and Prevention of Tuberculosis*. Also *Constitution and By-Laws*.

P. C. Conn, M. D., Secy.—*Transaction New Hampshire Medical Society*, 1905.

Dr J. H. Makuen, Philadelphia—4 Pamphlets.

Dr G. B. Johnson, Richmond, Va.—14 Pamphlets.

Dr W. E. Bruner—13 volumes various medical works.

Dr H. E. Handerson—*Handbuch der Geschichte der Medizin*. This completes this interesting work; *Janus* for 1905; *Lettres Choises de Feu. M. Guy Patin, 1725*; W. H. Keen, *History of Philadelphia School of Anatomy*; Jonathan Osborn, *Nature and Treatment of Dropsical Diseases*.

Dr Clyde E. Ford—*Robert's Rules of Order*.

Dr D. H. Beckwith—4 volumes *History of Homeopathy*, by King.

Dr Dudley P. Allen—*Annals of Gynaecology and Pediatrics*, Vol. 18.

U. S. Surgeon General—*Report Library of Congress*, 1905.

Dr E. F. Cushing—*Monatschrift fur Kinderheilkunde*. Band 1, 2, 3; *Journal of Medical Research*, Vols. 11 and 13; *Pediatrics*, Vols. 16 and 17; *Medicinische Klinik*. Band 1, 1905.

Dr. F. C. Heath, Secy.—*Transactions Indiana State Medical Society*, 1905.

Dr Folkens—*Clinical Atlas Venereal Diseases*, by Taylor.

Dr Hunter Robb—*American Medicine*, 2 vols., 1905; *American Journal Medical Sciences*, 2 vols, 1905; *New York Medical Journal*, vol. 81, 1905; *Journal American Medical Association*, vols. 44, 45, 1905.

W. Louis Chapman, M. D.—*The Sequelae of Gonorrhea*.

Dr Harris G. Sherman—*Annals of Ophthalmology*, 6 numbers; *Annals or Otology*, 10 numbers; *Journal American Medical Association*, 2 vols.; *Archives of Ophthalmology*, 11 volumes, 8 of which are bound; *Archives of Otology*, 11 volumes, 8 bound; *Transactions Section on Laryngology*, *American Med. Ass'n*, 1899, 1901; *Transactions Section on Ophthalmology*, *American Med. Ass'n*, 1899, 1902; *Proceedings Western Ophthalmologic*

and Oto-Laryngologic Ass'n, 1902; Transactions Ophthalmologic Division American Academy of Ophthalmology and Oto-Laryngology, 1903 and 1904; Transactions Ohio State Medical Society, 1900, 1901, 1903, 1904; E. Ellis, Diseases of Children; M. Rosenthal, Diseases of Nervous System; W. F. Clarke, Practice of Surgery; Bristowe and others, Diseases of Intestines and Peritoneum.

Cleveland Medical Journal—Practical Medicine Series, Vol. 1, 1905, General Medicine; H. Leffman, Medical Chemistry; Bouchard & Oliver, Autointoxication in Disease; Edmunds & Cushny, Experimental Pharmacology; Transactions Lackawanna County Medical Society, 1905; The Prevention of Disease, translated from the German by H. Timbrell Bulstrode, 2 volumes; About 400 numbers of journals, various.

Guy Hinsdale, M. D., Secy.—Transactions American Climatological Ass'n, 1905.

S. S. Cohen, M. D., Secy.—Transactions Ass'n American Physicians, 1905.

R. H. Harte, M. D., Secy.—Transactions American Surgical Association, 1905.

Russell H. Boggs, M. D., Secy.—Transactions American Roentgen Ray Society, 1904.

Dr J. E. Cogan—Ophthalmology, vol. 1, 1905. Vol. 2, Nos. 1, 2; The Ophthalmic Record, 29 numbers; The Laryngoscope, 31 numbers.

Dr. Matson, Secy.—Ohio State Board Medical Registration and Examination Annual Reports 1st, 1896 to 9th, 1904.

Dr J. Riddle Goffe, Secy.—Transactions American Gynecological Society, 1905.

Dr Henry S. Upson—Journal of Psychological Medicine, Vols. 1 to 10. 16 other volumes, various medical works.

U. S. Marine Hospital—Annual Report U. S. Surgeon General, Public Health, 1905.

W. C. Phillips, M. D.—Transactions American Laryngological, Rhinological and Otological Society, 1905.

Secretary Ohio State Board of Health—Annual Report to 1904.

S. T. Armstrong, Superintendent—3rd Annual Report Bellevue and Allied Hospitals, New York, January 1, 1904 to December 31, 1904.

## Medical News

G. W. Hoffman, of Lorain, who has been ill, is slowly recovering.

Dr and Mrs. Mills, of Norwalk, have recently located in Cleveland.

A. Per Lee Pease, of Massillon, who has been touring Europe, is at home again.

H. H. Shafer, of Alliance, has returned from Texas and reports much better health.

F. S. Pomeroy, of Chardon, who has been ill with typhoid fever, is now improving.

Dr and Mrs. A. B. Smith, of Wellington, are making a brief trip to Roanoke, Va.

J. W. Clark, of Wellington, has moved to Berlin and will succeed Dr Davis at village physician.

J. F. Kirkpatrick has disposed of his practice in Jersey, Licking County, and is again located in London.

C. B. Benson, of Troy, who has been attending lectures in a Chicago Medical College, is now at home.

O. T. Maynard and wife, of Elyria, have concluded their trip and the Doctor is now studying in London.



Dr Rogers, of Findlay, has gone to New York for several weeks to take up studies in the eye and ear hospitals.

A. N. Garver and family, of Lorain, are back again from Orlando, Fla., where they have been spending a vacation.

L. H. French, of Hamilton, who received two broken ribs, fractured shoulder blade and other injuries, will recover.

C. E. Fraunfelter, of Canton, has returned from New York City where he has been studying at the New York Polyclinic Hospital.

W. W. Hayes, of Lorain, has returned from New York City, where he has just completed a post graduate course and will take up his practice at South Lorain.

The Delaware County Medical Society held its regular monthly meeting Friday evening, April 6th. The address of the evening was given by D. E. Hughes.

M. Lowenthal, 428 Rose Building, Cleveland, desires to notify the medical profession that he is devoting his office hours especially to electric treatments.

The Darke County Medical Society held its regular monthly meeting April 12th at Greenville. G. W. Burnett read a paper on the late small-pox epidemic in Greenville.

The forty-eighth regular meeting of the Canton Medical Society was held April 6th. Program: Lecture, "Diagnosis and Surgical Treatment of Tuberculosis of the Kidney," W. E. Lower, Cleveland; Social Session following the regular program.

Civil Service examination for Medical Interne, Government Hospital for the Insane, Washington, D. C., and vacancies as they may occur in any branch of the service requiring similar qualifications, will be held June 6-7, 1906. For further information address the United States Civil Service Commission, Washington, D. C.

The twenty-fifth regular session of the Lake County Medical Society was held at 8 p. m., Monday, April 2nd, 1906, in the assembly room of the Parnly Hotel, Painesville. Program—Presentation of Clinical Cases; Some Clinical Pictures of Hysteria, Herbert de L. Spence, Cleveland; Discussion opened by Drs Winans and Brady on the negative, and Drs Good and Ingersoll on the affirmative, with a general discussion following; Good of the Society.

The first monthly meeting of the Butler County Medical Society was held Wednesday, April 11. The general subjects was Obstetrics. W. H. Taylor, of Cincinnati, read a paper entitled, "Some Recent Experiences in Obstetric Practice." Mark Millikin read a paper on "Puerperal Eclampsia;" M. M. Jacobs, "A Few Considerations in Obstetrics;" and H. E. Twitchell opened the discussion on "Case Reports of Suspended Animation in the Newborn."

The meeting of the Huron County Medical Society was held April 12. Henry S. Upson, of Cleveland, read an interesting paper on "Some Forms of Neuritis with Special Reference to Treatment," the paper showing a thorough knowledge on the subject. Dr Hawley exhibited a fine specimen of congenital malformation. A. L. Osborne was chosen delegate to the state convention of the association and Henry R. Dewey, of Bellevue was chosen alternate.

The program for the April meeting of the Gallia County Medical Society is as followss: Dr. Lester Kellar, Ironton, Medical Treatment of Appenditis from the Surgeon's Standpoint; Dr A. G. Helmick, O. H. E., subject to be selected; Dr L. C. Bean, Gallipolis, Diseases Prevalent in the Marine Hospital Service. For the May meeting the program is as

follows: Dr Jehu Eakin, Gallipolis, Cirrhosis of the Liver; Dr W. E. Howell, Rio Grande, Puerperal Eclampsia; Dr E. B. Morrison, O. H. E., subject to be selected.

The last meeting of the Jefferson County Medical Society was held in Steubenville, Ohio, Tuesday, April 10th. Program—Call to order by the President; Reading minutes of last meeting by the Secretary; Clinical Cases by the Society; Report Case of Thrombosis of the Cavernous Sinus, Dr J. S. Mossgrove. General subject of meeting, The Artificial Feeding of Infants; The Proprietary Foods, Dr J. W. Collins; Discussion opened by Dr Fitzsimmons; Pasteurization and Sterilization of Milk, Dr H. C. Minor; Discussion opened by Dr Kreager. Unfinished business. Miscellaneous business. Announcements.

The annual meeting of the Erie County Medical Society was held at the Sloan House, Sandusky, Ohio, at 3:30 p. m., March 29th, 1906, the President, Dr Graeffe, in the chair. The following members were present: Drs Love, A. F. Cook, C. H. Merz, H. C. Schoeffle, Graeffe, Davis and Dr C. E. Ford, of Cleveland. The following were elected to membership: Drs P. F. Southwick, C. B. Bliss and C. Gorsuch of Castalia. Officers elected for the ensuing year were; Dr Chas. Graeffe, President; A. F. Cook, Vice-President; Carrie C. Davis, Secretary. Delegate to State Convention, Dr A. F. Cook, Alternate, Dr C. H. Merz. Censors, Dr Storey, Castalia, Ohio, for two years; Dr Love, three years. An informal discussion of the needs of the Society was held. It was decided that the regular meetings of this Society should be held on the second Wednesday of each month. In April the Society will be addressed by Dr C. A. Hamann, of Cleveland.

The thirty-third annual meeting of the Homeopathic Medical Society of Eastern Ohio was held at the Windsor hotel April 19. Officers for the coming year were elected. The following program was carried out: "The Scientific Basis of Homeopathy, Dr G. W. Spencer, Cleveland; Memorial Address, Dr Carter, Dr. J. W. Rockwell, Akron; President's Address, Dr G. J. Damon, Medina; Eye Strain, Dr. W. H. Phillips, Cleveland; The Outlook, Dr Wm. Murdock, Akron; Diphtheria, Dr. F. D. Smith, Cuyahoga Falls. A large number from out of town were present at the morning session, among them being, Drs. F. W. Knipple, Wm. Windsor, G. W. Spencer, H. D. Chamberlin, C. A. Hall, Carl H. Rust, O. H. Palmer, L. E. Eeimon, H. F. Staple, J. R. Horner, Miss Alice Butler, G. J. Jones, all of Cleveland, and Drs A. E. Steffield, Doylestown, G. B. Haggart, Alliance, T. T. Church, Salem and G. J. Damon, Medina. At the noon meeting the following officers were elected: President, Dr D. Seimon, of Cleveland; Vice-President, Dr E. J. Cauffield, Akron; Treasurer, F. D. Smith, Cuyahoga Falls; Secretary, Dr G. B. Haggart, Alliance; board of censors, Drs Staples, Cleveland, J. W. Rockwell, Akron, F. R. Church, Salem.

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## Deaths

Dr Wise, of Mt. Eaton, died recently.

J. F. Stough, of Newton Falls, died suddenly of heart trouble.

J. W. Gardner, a prominent physician of East Liverpool, is dead at the age of 80 years.

Eugene Harrison, an old army surgeon of Napoleon, died very recently as the result of an operation.

T. H. Exline, a former well known resident of Canal Dover, died recently in Los Angeles, California.

# The Cleveland Medical Journal

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No 6

## Tendon and Muscle Transference

E. H. BRADFORD, M. D., BOSTON

Since the introduction of tendon grafting by Nicoladoni in 1881, various modifications of the original suggestion have been brought forward until at present the surgeon has several procedures to consider in the treatment of paralytic deformities.

The following paper is based upon the experience in tendon surgery of my colleagues and myself at the Boston Children's Hospital in the last twenty years, and represents an inquiry into the final results of a considerable number of cases. The experience, however, of the earlier years when the methods introduced everywhere were in a somewhat tentative stage cannot well be used statistically, and is only presented in the form of general impressions gathered from accumulated experience. Even in the later cases, after only well tried methods were used, it is difficult to group different cases in such a way as to permit a final statistical estimate of the relative usefulness. It is hoped, however, that any serious contribution to the subject will be of service.

The various methods to be employed in tendon and muscle surgery may be briefly enumerated as follows: tendon lengthening, muscle lengthening, tendon and muscle shortening, tendon grafting, tendon and muscle transference, tendinous fixation. In connection with the surgery of paralytic deformities the benefit to be derived from arthrodesis frequently comes into the surgeon's consideration.

Tendon lengthening, formerly limited to subcutaneous tenotomy is now made more effective and more extensively useful by open incision and retaining sutures. Z-shaped tendon incisions, repeated side incision and stretching, lengthening by tendon flaps, the utilization of silk strands. Simple subcutaneous tenotomy is



today chiefly applicable to the tendo Achilis of children and to the tendons of the toes and fingers.

Muscle lengthening can be employed by stretching the elastic position of muscles after dividing the encasing or intra-muscular fascia, and will be found of service especially in spastic conditions of cerebral palsy.

Tendon and muscle shortening are easily and safely accomplished by division and side apposition of the divided portions with careful suture fixation, or by suturing firmly a fold in the tendon or muscle. The former is perhaps the more reliable method when strain is to be expected on the shortened tendon; the latter is more quickly and readily performed.

Clinical experience appears to show that where the subsequent strain, which is required in the functional use of the limb, is great, periosteal insertion is preferable to tendon insertion or tendon grafting. The former requires, however, either more extensive dissection than the latter, the channelling of the tissues or often employment of silk strands as artificial tendons—a means with both advantages and disadvantages.

Lange has demonstrated that transferred silk strands become the centers of reorganized tissue, which form firm and useful tendons, and with skill and care the dangers from pressure, sloughs, sepsis, tissue cutting by wear are reduced to small percentages, but in the experience of many surgeons, especially in their early cases, they still constitute dangers to be reckoned with. There can, however, be no doubt not only of the value of the method in Lange's hands, but also in the practice of all careful surgeons. Artificial silk tendons enable the surgeon to enlarge the field of serviceable operation, and to secure points of effective attachment which are essential in gaining the best functional results.

Where the paralysis is extensive, the utilization of a strong muscle for double service is attempted by transferring a split portion of the tendon of a large muscle and requiring the split portion to perform the service of a paralyzed muscle. In order to secure, as far as possible, independent action of the split portions, Drobnik has advocated the extensive splitting of muscles as well as to tendons, but the method cannot be relied upon to give independent muscular action. The split tendons act, however, as stays and can prevent foot drop or wrist drop.

It can always be remembered that in extensive paralysis where tendon transference is impossible, tendinous fixation can be used with advantage, preventing the development of distressing

foot deformities and also securing serviceable limbs. Arthrodesis, the ankylosis of the joint by the removal of the cartilaginous surfaces, is a measure which may be reserved as a last resort and is not as applicable to young children where the cartilage forms a large portion of the ends of the bones. The method, however, is of much service in older cases of extensive paralysis.

The selection and application of these procedures are determined by different conditions and according to the functional needs and conditions of different parts of the body. A survey, therefore, of the subject can conveniently be arranged under anatomical heads.

#### FOOT AND ANKLE

The paralytic disabilities which most frequently present themselves for relief to the surgeon are those of the lower extremities, especially of the foot and ankle. The object of treatment is to give sufficient stability to the foot to enable the patient to walk without great difficulty, and for this the control of certain muscles is necessary. There are nine muscles in the leg, the function of which gives to the foot the strength, stability and movement needed in locomotion. These movements may be classed as the up and down motion of the front of the foot, the raising of the heel, the turning of the foot in or out. For these movements it is necessary that firm attachments should be made at five points; one at the end of the os calcis for raising the heel; one at the out and one at the inside of the middle of the foot for turning the foot in or out: and also strong attachments at each side for raising the front of the foot. If any of these attachments are weak or if the muscles attached to these points are paralyzed, the usefulness of the foot is impaired.

It has been found frequently in extensive paralysis that tendon grafting, or the insertion of one tendon into another, does not give sufficient strength to the resulting tendon to secure as much permanent benefit as is desirable in the lower extremity—and under these circumstances the transference of the whole or a great part of a strong muscle with a periosteal insertion is necessary. Where one important muscle is paralyzed its place may be taken by transferring an adjacent muscle of less importance, sacrificing the function of the latter for the benefit of the greater need. For example, the extensor proprius pollicis may be used to take the place of the tibialis anticus, or one of the tendons of the extensor communis can be used to take the place of a peroneus, or the tibialis anticus can be transferred to the periosteal attachment of

one of the peronei or vice versa. The matter is more difficult when a large number of muscles are paralyzed.

Where the extensor proprius, the tibialis anticus and the extensor communis are all paralyzed, the surgeon can either transfer the peroneus, splitting the tendon and making a double insertion of the peroneus on both sides of the foot, or can utilize

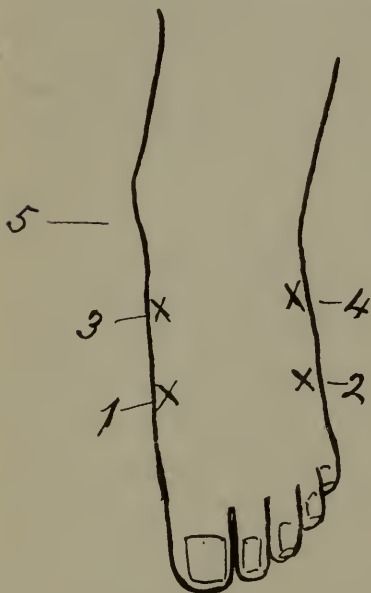


FIG. I.

Diagram illustrating points of attachments for movement of the foot.

1 and 2 for raising the inner and outer edge of foot.

3 and 4 for turning the foot in and out.

5 for raising heel.



FIG. II.

Diagram illustrating freeing the tibialis anticus for periosteal insertion on the outer side of foot.



FIG. III.

Diagram illustrating freeing of a strand of the trapezius for insertion in the tendon of the deltoid.



FIG. IV.

Illustrating freeing pronator radio teres to pass it around the dorsal surface of radius for insertion on the outer side.



one peroneus and a split portion of the tendo Achillis, or he can use the flexor proprius or the flexor communis. The advantage of the utilization of the flexor communis and flexor proprius is that when success is attained a more serviceable foot is gained. The disadvantage is, however, that it is necessary where these muscles are so utilized to make use of silk strands to lengthen the tendon, demanding a greater amount of skill and a corresponding diminution of the chance of success in the hands of surgeons not perfectly familiar with this method. The advantage of utilizing a split portion of the tendo Achillis or of the peroneus is the avoidance of the risk from the use of silk tendons, but with the probable loss of independent action of the transferred tendon. Where the flexor communis and flexor proprius are paralyzed as well as the extensor communis, tibiales and peronei, the surgeon can make use of tendinous fixation of the joint, which consists in fastening the paralyzed tendon to the tibia, cutting them off just above the annular ligament, thus preventing toe drop. In two instances the writer has reinforced this fixation by passing a silk strand through the tibia and inserting its ends at both sides of the mid-tarsus.

Where the gastrocnemius and the soleus are paralyzed and a calcaneous deformity results, transference of one of the peronei and tibialis anticus can be utilized. It is usually advisable to accompany this by correction of the deformity, which can be done by an osteotomy of the posterior end of the os calsis, and accompanied by shortening of the tendo Achillis and tenotomy of the plantar fascia.

In the deformity which is known as cavus or humped foot, Sherman of San Francisco has advised the insertion of the tendon of the extensor communis into the head of the *metatarsal* bones. Foot moulding by forcible correction and even mid tarsal osteotomy with free tenotomy and fasciotomy are often needed. In many instances the deformity is in reality a shoe deformity in a paretic or weakened foot, and after correction, if careful attention is given the foot wear, an adequate result is gained. The difficulty of sufficient correction of the deformity is sometimes great.

#### KNEE

In paralytic deformities of the lower extremities, one of the most disabling is that of paralysis of the quadriceps extensor cruris. This can be relieved in two ways by the transference and insertion of the sartorius into the tendon of the quadriceps

extensor cruris, or the transference of one or more of the hamstring tendons, with insertion into the patella, the ligament of the patella or the tibial tubercle. Sartorius insertion has been supplemented by the utilization of the tensor vaginae femoris, and transferring as tendon of the muscle a dissected portion of the ilio tibial band, which is inserted into the patella. Excellent results have been obtained in all of these methods, but it is manifest that considerable ingenuity and skill, as well as judgment, is necessary to obtain the best results. For example, in case the sartorius is not applied with sufficient tension, and the patella is simply held by what may be regarded as a slack muscular rope, the functional results will not be as good as where a strong and taut hamstring muscle has been properly applied. It is manifest also that the tendinous insertion should be strong and firm, and the experiments of Lange would appear to prove that the insertion of silk strands furnish the strongest and best method of attachment. This is disputed by many competent surgeons, and a critical examination of the facts would seem to show that while Lange's experiments are undoubtedly true, the results will necessarily depend upon the skill of the surgeon in employing the method with which he is most familiar. The writer can testify to one success and two failures in sartorius transference, to two successes in hamstring transference and one recent case of hamstring and tensor vaginal transference where the benefit is doubtful.

*X* In slipping patella, shortening and internal insertion of the tendon of the extensor cruris accompanied sometimes by shortening of the inner capsular ligaments will be found to be curative.

*X* *Hip:* As yet but little has been done in muscle transference at the hip. Gibney has removed the tensor vaginae femoris for spastic inversion of the limb, and two attempts have been made at the Children's Hospital, Boston, to give a stiffening of the hip joint by arthrodesis in place of a loose flail-joint. In one the result did not give sufficient benefit to justify the procedure; in the other, the ultimate result is doubtful. It is possible, however, that with muscle transference of a strand of the glutens into the paralyzed adductors, some satisfactory method may be devised for the relief of the distressing disability which results from a flail hip joint.

*X* *Shoulder:* Paralysis of the deltoid can be most satisfactorily treated by transference of a portion of the trapezius, and the insertion of this into the terminal tendon of the deltoid. Soutter, in an unpublished case, has aided this by transferring a portion of

the pectoralis minor, inserting it into the paralyzed biceps. In this way a most useful arm resulted, enabling the patient to raise the arm, giving also more fixation at the elbow, as has been satisfactorily proved in three of the writer's cases.

*Elbow:* Disability of the elbow joint from paralysis of the biceps has been generally left untreated, with the exception of Jones' method of cicatricial shortening of the skin and tissues at the elbow, but it is probable that the transference of the pectoralis major or minor into the biceps, may be of use in this deformity. Transference of bands of the biceps has been performed with success.

*Wrist:* Wrist drop can be checked either by shortening of the extensors of the wrist, or by the transference of the flexors, if strong, to the posterior portion of the wrist. This can be done by either passing the strong tendons through the interosseous septum, or by passing the tendon around the ulna and radius, and inserting them into the weakened or paralyzed extensor tendons.

Much can also be accomplished in the pronated hand by Tubby's operation of the transference of the pronator radii teres from a pronator to a supinator insertion. This is shown by lowering the radial attachment of the muscle, passing it around the posterior side of the radius, and inserting it on the outer side. In wrist and forearm disturbances much can be accomplished also by what may be termed extramuscular fascial elongation, and where these muscles are placed on a stretch it will be found that the fascial bands in the belly of the muscle are tense and short. These are easily divided without direct dissection, and the elastic portion of the muscle can be readily stretched. This method will be found to be of use in lengthening the shortened, but not paralyzed, muscles. Tendon grafting of the finger and thumb muscles has been proved to be of much service in partially paralyzed hands.

*Neck and Head:* The well known satisfactory results obtained in tenotomy and myotomy in torticollis may perhaps be referred to in this connection, as they constitute muscle lengthening, though not muscle transference; they are, however, additional evidence to the value of muscle surgery.

It is difficult to give in full technical details in regard to all the procedures above mentioned. Some principles must, however, be strongly emphasized. First, it is essential that before any attempt is made at muscle transference, all deformities be corrected. This can be done by forcible stretching, or by tenotomy, or by myotomy or even osteotomy. It is also essential that the trans-



ferred muscle should not be inserted in a slack condition, a fact which needs no argument, but which is frequently overlooked. It is also important that the transferred muscle should be sufficiently strong to accomplish the work expected of it and not subjected to too great a strain in after treatment, if definite results are to be obtained. This is a matter not easily determined, especially in children, for the weakness of diseases is not always distinguishable from the weakness of partial paralysis, a point which may be determined by the surgeon of experience largely from the color and texture of a good muscle.

It is manifest that if the extensor proprius pollicis is expected to perform the functions of the extensor communis unaided, the result will not be satisfactory, nor can it be expected that a weakened peroneus can be made in a calcaneous deformity to do the work of the tendo Achilis.

It is for this reason that judgment is to be exercised in the selection of the proper procedure, especially in the performance of this operation in children, where much, but not too much, can be expected from the growth and the development from use of the muscles.

Where it is uncertain as to what can be gained in the ankle from muscular transference, it is important to utilize tendinous fixation in addition to muscle transference. It is of the greatest importance that the transferred muscles should be treated with proper delicacy if they are expected to retain their functional activity. It is also important that their point of insertion should be not only well attached, but selected in such a way as to give a proper point of attachment for the requisite mechanical results. In other words, if the tibialis anticus is expected to be transferred in such a way as to raise to the foot, it should be inserted well forward and with a secure attachment.

This leads to the question of the utilization of silk strands. The disadvantage of this method is the danger of the sloughing of the inserted silk, the cutting out of the silk from the rubbing of the threads, or from the irritation of the silk in use. It will be found by surgeons first contemplating this method, especially at the ankle, that this constitutes a serious obstacle to the introduction of the method. It is one, however, which is overcome by the exercise of care. Lange has proposed to diminish the risks from silk strand tendons by not only thoroughly boiling the silk in a bichloride solution for the destruction of all spores, but the immersion of the silk strand in hot paraffin immediately before its

introduction into the tissues, thus coating the silk fibre with a nonirritant substance. Great care is needed that the tying of the knots at the points of insertion should be made in such a way that they do not in themselves offer points of resistance to the friction of the retaining splints, bandage or supporting appliance.

The selection of the muscles to be transferred and the points of attachment are matters of individual judgment in each case, and cannot be well described in any written statement of the method but can only be acquired by actual experience.

The after care of these cases requires mention and is of great importance. It is manifest that a transferred muscle will need protection for several weeks or months after operation and that when this is neglected a satisfactory results cannot be obtained.

The protection should not be limited to plaster bandage fixation, which necessarily limits the muscular development and still farther weakens the already weakened muscles. Muscular development is an essential part of the treatment and for this the temporary use of appliances which protect certain movements of the ankle and allow others, are of importance. Massage, electrical irritation, muscular training are all of importance.

*Statistical Results:* The collection of statistics as to the value of this method of treatment although important is extremely difficult, for the reason that each case is a case of itself presenting certain difficulties which may not exist in other apparently similar cases. Surgeons vary so greatly in their technical skill that it is unfair to condemn the method used in the case of one by results obtained by the same method used by another surgeon, and statistical comparison is hardly possible.

At the Boston Children's Hospital, the operation of tendon grafting and of tendon transference has been performed a large number of times, and the last 20 years, upward of 300 cases recorded. A more complete tabulation of these cases is in preparation for a hospital report. For the present, the results of cases operated upon in 10 months, between the dates January 1, 1905 and November 1, 1905, are as follows:

Total number of cases performed in Children's Hospital, Boston between Jan. 1, 1905, and Nov. 1, 1905.....	62
Condition ascertained in March, 1906.....	48
Improved .....	33
Not improved .....	14
Died of aciduria shortly after operation .....	1

The procedures employed varied and in some of the cases arthrodesis at the ankle was performed in addition to transference of the tibial or peroneal tendon. The cases were with the exception of two, of the lower extremity and in the greater number of the foot alone, though both feet and thigh paralysis were treated in a number of instances.

#### NERVE GRAFTING

As this paper deals with muscle and tendon transference, the subject of nerve grafting is not properly included here, but in connection with paralysis of the extremities, reference should be made to the recent brilliant experimental work of Fleureus, Manasse, Kilvington, Cunningham, and the valuable clinical work by Sick and Sanger and Kennedy in the arm; Faure, Furet, Kennedy, Cushing, Hackenbuch, Ballance, Purves, Stewart, Körte, Tubby in facial paralysis and that of Peckham, Long, Spiller, Spritzky and Tubby in paralysis of the leg. The writer can bear witness to the ease with which the operation can be performed and the satisfactory immediate result in a single case of paralytic calcaneus when transference of a branch of the paralyzed internal popliteal was made into the external. The procedure is one of much promise and has already given successful results. Its exact value and limitations have not yet been determined. The various procedures in tendon and muscle transference in the different paralytic deformities which demand the surgeon's attention can be conveniently tabulated. The distinction is made here in the following scheme, which may be suggestive to the surgeon between the deformities of infantile spinal paralysis, anterior poliomyelitis and cerebral paralysis.

It may be said in conclusion that what is especially needed in the treatment of the paralytic deformities of the limbs is careful, thorough execution of all details, and the most painstaking after treatment. It will be found that there are few procedures in the whole range of surgery which are more satisfactory than those under consideration, demanding as they do technical skill in operative manipulation, an acquaintance with the procedures introduced and practiced by others, and the exercise of the very best judgment in the planning and selection of the procedure suited to each case.

The immediate results are as a rule satisfactory and the ultimate results give either benefit or a practical cure to a considerable percentage of the cases treated.



TABLE OF PROCEDURES IN PARALYTIC DEFORMITIES

Deformities of Foot.	Muscles Paralyzed.	Muscles Transferred.	Expected Result.
Equinus Equino Varus Valgus Equino Valgus.	Tibialis anticus Extensor communis digitorum.	1. Flexor communis or 2. { Extensor proprius peronei.	Improvement.
	Tibialis Anticus. Tibialis posticus.	Flexor proprius. Extensor proprius.	
	Tibialis anticus. Tibialis posticus.	1. { Flexor communis. Flexor proprius. or 2. { Peroneus. Portion of Tendo Achilis.	Improved functional use. " "
	Extensor communis. Extensor proprius.		
	Peroneus.	Tibialis anticus.	" "
	Peronei. Tibialis anticus. Tibialis posticus. Extensor communis. Extensor proprius.	Flexor communis. Flexor proprius.	" " " "
	Peronei. Tibialis. Extensors. Flexors.	1. Tendinous fixation or 2. Arthrodesis.	" " " "
	General weakening of all muscles.	Division of plantar fascia correction of deformity.	Improvement of deformity.
Cavus.	Contraction of plantea fascia and muscles of the sole.	Insertion of extensor tendons in distal ends of phalanges—fasciotomy transverse tarsal osteotomy.	
Haleux valgus.	Deformity of head of metatarsus and outward slipping of tendon.	Inside insertion of extensor proprius pollicis or outer side of phalanx. Osteotomy of head of metatarsus.	Correction of deformity.
Hammer toe.	Contracted flexor longus and extensor communis digitorum. Shortened fascia ligaments and altered facets.	Tenotomy Pasciotomy Division of ligaments wedge shaped incision.	Correction of deformity.
Calcaneus.	Gastrocnemius.	Tibialis anticus peronei, or Osteotomy of os calcis and shortening of tendo Achilis.	Improvement.
Deformity.	Parts Affected.	Procedure.	Expected Result.
Contraction at Knee.	Paralysis quadriceps extensor. Contraction of hamstrings.	1. Transference of one or all hamstring tendons. 2. Transference of sartorius and tendon of tensor vaginae.	Functional recovery.

Deformity.	Parts Affected.	Procedure.	Expected Result.
Slipping patellae.	Lengthening of ligamentum patellae.	Shortening and inward transferred insertion of ligamentum patellae. Shortening of internal capsular ligament.	Cure.
Flail hips.	Paralysis of adductors Weakening of glutei Contraction of tensor vaginae femoris.	1. Arthrodisis of hip. 2. Gluteal insertion into adductors. Transference of tensor vaginae to weak and gluteaus. Transference of inner hamstring for adductor paralysis.	Operation not of certain benefit.
Contracted hip.	Contraction of tensor vaginae and psoas and iliacus.	Tenotomy. fasciotomy.	Improvement.
Deformed hips. Spasmodic inversion of limb. Spasmodic adduction.	Adductor spasm. Spasm of tensor vaginae.	Tenotomy or removal of adductors. Removal of tensor vaginae.	
Dangle shoulder.	Paralysis of deltoid.	Transference of portion of trapezius.	Functional improvement. Able to raise arm to head.
Dangle arm.	Paralysis of biceps.	1. Transplantation of portion of biceps. 2. Transference of portion of the pectoralis muscles into biceps. 3. Skin shortening at fold of elbow.	Functional improvement.
Weak arm.	Paralysis of triceps.	Transplantation of portion of the deltoid to the triceps.	Improvement.
Twisted arm.	Contraction of pronators. Weakening of supinators.	Transference of pronator radiiteres to a supinator insertion of shortened fascia.	Some improvement.
Wrist drop.	Paralysis of extensor carpi radialis.	Transference of flexor carpi uluaris and radialis with insertions into extensor tendons or silk strand insertion into bones, and if necessary, with lengthening of the tendons of the flexor sublimis and profundus digitorum.	Functional improvement.
Paralysis of hand.	Spasmodic contraction, at wrist and hand.	Tendon grafting of appropriate tendons lengthening of flexor sublimis and profundus digitorum.	Some improvement.
Dupuytreus Contraction.	Contracted shortening fo subcutaneous tissue of palm and finger.	Fasciotomy and tenotomy.	Improvement.

## A Case showing Abdominal Ptosis, Hyperchlorhydria, Regurgitation and Rumination

BY GEORGE WILTON MOOREHOUSE, M. I., M. D.

Mrs. S., aged 31 years, was first seen June 9, 1905. Her family history is of no special consequence, although her mother and two brothers have some gastric trouble, the symptoms complained of by the brothers being very much the same as those of this patient.

Except for digestive disturbances the patient has always been well. At about the age of 18 years she began to have distress and bloating after meals and frequent vomiting of food eaten. It was rather regurgitation than vomiting since the food came up a mouthful at a time. She never saw any blood either fresh or changed in the vomitus. She was usually constipated. One summer blood and what the patient thought to be pus was noticed at stool. These disappeared after a time and she has had no similar trouble since.

The patient married when she was twenty-five years of age and has suffered much more severely since that time than she did before. In the first two years of married life she was twice pregnant and vomited, rejecting entire meals, throughout her pregnancy. During the third year she was also pregnant and vomited for four or five months. This child died at the age of nine days two years ago. After the death of the child the patient lost her appetite and did not regain her former strength. She soon became pregnant for the fourth time but aborted at the end of two months in September or October, 1904.

While for years she has had digestive troubles the individual attacks changed somewhat and became more severe about four years ago. The disturbance after food was more marked, attacks of weakness and dizziness were frequent, the stomach seemed very sour.

After the abortion the difficulties multiplied. The symptoms already described became more severe and occurred more frequently. The appetite was good but she was afraid to eat. Many articles of food appeared to cause choking(!). In the morning upon rising she would belch for about two hours and would finally bring up something which looked like the beaten white-of-egg and had a bitter taste. She suffered much from pyrosis, her complexion was bad. She began to ruminate. Pressure was



exerted upon the epigastrium and food so regurgitated was re-chewed and swallowed, until it became quite sour when part or all of it was rejected. This manouever consumed one to two hours after each meal. In the process the face flushed and she subsequently became chilly with numbness of the arms and lips.

Soon after the abortion treatment for her digestive troubles was begun. Her physician used lavage. Seven hours after her mid-day meal abundant food remnants were found. The patient soon secured a stomach tube and lavage was carried to great excess, often three time daily. At first the washings seemed beneficial but later they were employed without any good result. Soft boiled eggs, milk, baby food, farnia, oatmeal or flour well cooked, and creamed soups were about the only articles of diet which seemed to digest. The patient states that rice, peas, spinach, carrots, turnips, boiled potatoes, lima beans, steak and bacon, would be found after being in the stomach for eight hours. After eating any of these things she could not take another meal without having the stomach washed. During the summer of 1905 her weight was 94 pounds.

There was a great increase of the disturbance at each menstrual period. This began a week before the flow and lasted usually for a week thereafter.

The patient has never been greatly subject to headache. She had no real abdominal pain, merely a sensation of heaviness, or fullness; nothing in the way of pain itself that would point to ulcer of the stomach or to biliary or kidney stones.

Her bowels are usually constipated, her appetite variable, usually fair to good, often excellent. She is not subject to cough nor does she have symptoms referable to the circulatory or urinary systems.

She has suffered a considerable tear of the perineum and cervix. The uterus is somewhat low and retroverted. Very slight general relief has been experienced from the use of a pessary but the relief from gastric symptoms that has been experienced cannot be traced with any probability to its use.

Examination shows a fairly well developed but poorly nourished woman looking somewhat pale and having little subcutaneous fat. Weight 94 pounds. In the erect position the epigastrium was sunken, the umbilical region protuberant. The lower pole of the right kidney was palpable. The pupils are unequal, they respond to light but the response is very sluggish and slight. They respond normally to accommodation. The knee jerks are present but are elicited with great difficulty. These

reactions for a time were thought to be absent and it was supposed that her other difficulties were complicated by a beginning tabes.

The stomach contents have been secured on several occasions after test meals and have usually indicated a hyperchlorhydria, the total free hydrochloric acid and total acidity have either indicated a high normal or a positively increased acidity. Lavage has not been performed by me except to remove a test meal. Mucus in considerable amounts has usually been found. At the first examination, after lavage, the stomach tube was removed and the patient had a very severe attack of what appeared to be belching; after recovery the stomach tube was reinserted and the stomach inflated with a Davidson syringe. Upon inflation the lower border was about a hand's breath below the umbilicus, the upper border appeared to be proportionately lowered. I have never succeeded in introducing in to the stomach or recovering from it an abnormally large amount of fluid and regard the condition as one of prolapse rather than dilatation.

During the time this patient has been under observation the motor functions of the stomach have been thoroughly investigated. Her statement that she finds herself unable to eat breakfast until she has washed her stomach suggests stagnation as does also her statement that she finds remnants of meals eight hours after their ingestion and that of her previous medical attendant that he has found abundant remnants seven hours after the preceeding meal. Until she came under my control no effort had been made to secure undiluted contents from the fasting stomach and every effort in that direction since that time has been unavailing, the wash water before breakfast has either been clear or but slightly bile-stained. I have no evidence of food remnants in the stomach for a time longer than five and one-half hours. Further, on one occasion,  $1\frac{1}{4}$  hours after an Ewald meal no contents were secured, and on another, three hours after a Leube meal, only 9 c. c. of contents were secured. Subsequent lavage each time indicated that the stomach was unusually free from food remnants. After ingestion of a gram of salol the reaction disappeared from the urine in normal time. For these reasons the motor functions of the stomach may be considered normal or only slightly impaired. The patient's hemoglobin was 90%, her urine normal.

*Diagnosis:* That a very marked functional nervous element contributes largely to the clinical picture presented by this patient is beyond doubt, and this added much to the uncertainty of prognosis and difficulty of treatment.

The diagnosis in this case had been dilated stomach with

impairment of motor functions and absent or greatly diminished secretion of gastric juice. It would seem that sufficient evidence has been offered to indicate that the stomach is prolapsed with little or no dilatation, that the motor functions are little if at all impaired and that we have to do with a hyperchlorhydria rather than a complete absence or diminution of hydrochloric acid secretion.

The history clearly indicates the regurgitation and rumination, which are, doubtless, much more dependent upon the functional disturbance of the nervous system than they are upon any functional or organic disease of the stomach.

It is in cases of chronic gastric disturbance, presumably, that the possible presence of an ulcer of the stomach or of biliary stones must be remembered. We can find in the patient's history and examination, however, no indication of them.

*Treatment:* At her first appearance the patient was found to have very positive ideas as to what she must do, and what she could not do. Belching, regurgitation, rumination and lavage, as well as strict limitation of diet were considered by her as most important for comfort and indeed for very existence. It was necessary to take these items up one by one and point out the evidence, provided by examination, which showed that they were unnecessary and undesirable. Neither was it possible to settle these questions once and for all, particularly since a marked increase of symptoms at the menstrual period was noticed for months.

After coming to me the patient but rarely used the stomach tube except before breakfast, and when she had determined that food remnants were not present at that time its use was prohibited. Upon this, however, the patient drank tepid water and vomited, and it was considered better, in view particularly of a relatively large secretion of mucus by the stomach, to permit (not advise) lavage before breakfast.

She was early placed upon an alkali to be taken two hours after meals. During the ups and downs of the first months of treatment it was uncertain whether the results secured were due to any medicinal treatment though several drugs were employed, or to advice and encouragement alone. Except when going through a menstrual period she soon reported improvement, and gained slightly in weight. Belching, regurgitation and rumination were usually checked and she felt better, although her general appearance had changed very slightly.

About four months ago with decided improvement in the



amount of food ingested and its retention by the stomach, the patient was placed upon Illoway's diet for hyperchlorhydria and the alkali which had not been used regularly was resumed. Soon moderated doses of belladonna were advised and directions were given for wet packs to be applied by the husband, the last suggestion, however, has not been carried out.

The patient has gained in weight from 94 pounds to 108 and has improved in every respect. She has recently discarded her stomach tube. Her stomach is better than it has been for years. Another measure of improvement may be found in the increased regularity of her menstrual function. At first the menstruation was often delayed as much as two weeks beyond the expected time and was sometimes missed altogether, at present the flow begins about the time it is due. Moreover, at these times, the disturbances of function both gastric and nervous are now very slight.

In looking back over the case it seems certain that the improvement has depended primarily upon the advice and reassurance made possible by the examinations of gastric functions, and may suggest the importance, mentioned in a recent address by Ex-President Grover Cleveland, of taking a patient into your confidence.

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## Vincent's Angina

LOUIS W. LADD, M. D., CLEVELAND

During the past few years much has been written, especially in the German and French journals, about a somewhat rare form of ulcero-membranous, and at times membranous inflammation of the tonsils and pharynx in which two forms of micro-organisms can be isolated in coverslip preparation, one a fusiform bacillus, the other a spirochaeta. These when properly looked for are present in almost pure culture.

The disease is of especial interest and importance because it is frequently confounded with diphtheria and syphilis.

In view of the fact that Vincent first gave to the medical profession the most accurate and complete description of the condition from both a clinical and pathological standpoint it has been called after him Vincent's Angina. There seems to be some doubt as regards the justice of this from the standpoint of priority of discovery, for H. C. Plaut in 1894, two years before Vincent's earliest paper, in an article entitled "Studies Regarding the Bacteriological Diagnosis of Diphtheria and the Anginas" reports

the case of a little girl four years of age, sent in with the diagnosis of severe septic diphtheria in December, 1892. Examination showed many carious teeth and membranous deposits upon both inner surfaces of markedly swollen tonsils and upon the left side of the uvula. Considerable inflammation of the gums was present. There was moderate swelling of the glands of the neck. Microscopic examination of the membrane showed what Plaut called Millers' spirochaetae and Millers' bacilli in large numbers. Diphtheria bacilli were neither demonstrable by cultures or animal experiments. Upon blood serum only streptococci developed. On the third day the temperature was normal, the membrane gone and only the slightest reddening of the throat remained. Seven weeks later the seven-year-old son of the foster parents of this child became ill with the same disease and the same micro-organisms were found, but could not be cultivated. The child became well in four days time. Plaut mentions three other cases of similar type and gives the symptom complex as being the sudden onset, the marked fetor of the breath, the high temperature and tough membrane, with the later rapid disappearance of all symptoms. He was evidently dealing with mixed infection.

Plaut gives Miller the credit of discovering the micro-organisms in 1883, and speaks of Miller's bacillus as being larger than diphtheria bacilli, pointed at the ends and always associated with spirochaetae.

He states that Miller found these micro-organisms in numbers increased beyond normal about the edge of badly inflamed gums and mentions a case cited by Miller where Verneuil and Clado found them in an abscess of the finger tip caused by laceration upon artificial teeth and in another instance in an abscess of the submaxillary gland.

In 1896, H. Vincent described the same bacteriological picture in cases of hospital gangrene seen in Africa.

In 1898, Vincent and Bernheim slightly later reported the same micro-organisms in practically pure growth in ulcero-membranous lesions of the tonsil of peculiar type.

Since then numerous contributions have been made to the literature and our knowledge of the disease picture and symptom complex further enlightened.

In this country, Sobel and Hermann, in December, 1901, reported 12 cases at the Good Samaritan Dispensary, New York.

Mayer reported a case in 1902; Fisher, two cases in 1903; Berkley, in 1903, wrote of the condition and recently reported a series of 29 cases met with during the past three years. Vincent

gives the literature to date in the May Lancet, 1905, in a brief communication.

From a perusal of the literature the following facts have been gleaned. This type of inflammation of the tonsils is comparatively rare in Europe and America, generally overlooked and confounded with diphtheritic and syphilitic ulceration but easily recognized by microscopical and bacteriological investigation.

The disease is especially frequent in childhood at the time of the second dentition, rare after 35 years of age and comprises 2.26% of all types of anginas in adults.

Poor nutrition, tobacco, and occupation are factors of etiological importance. Thus students of medicine who make dissections and orderlies working in anatomical laboratories are said to be more prone to infection. Both sexes seem to be equally liable to the disease.

The site of election in the immense majority of cases is the tonsil, usually one, rarely both. In Berkley's series the right tonsil was involved 14 times, the left 7 times and both once. In Sobel and Hermann's series the right side was involved 6 times, the left 4 times, and both twice. Four of Vincent's 100 cases had involvement of both tonsils.

Several instances are given in the literature testifying to the communicability of the disease though it must be rare. Plaut, Berkley, Sobel and Hermann, Auchea and Baron have all reported cases in which the communicability of the disease would seem to be established. Sobel and Hermann mention the case of two sisters who had the disease simultaneously and three weeks later a third sister was affected.

Vincent divides the disease into classes; the ulcero-membranous, and the diphtheroid, the former, the common variety, the latter, present in 2 out of 100 cases.

In the first class of cases the process is apt to begin in the upper angle of the tonsil as a greenish or dirty gray membranous-like area of necrosis, which looks not unlike diphtheria at times and which bleeds easily upon contact with food or a swab.

Soon a definite loss of tissue is made manifest and upon examination one finds a more or less deep crater-like excavation whose surface is covered with necrotic tissue, fibrinous exudate, pus and saliva. This superficial covering may hide the destructive nature of the process unless one is careful. One or both tonsils, and in two cases reported by Bandi the uvula, may be involved in the destructive process to such an extent that there is little tissue left.



The symptoms are those of a subacute sore throat in a case of average intensity, though the clinical picture may be complicated by mixed infection. Headache, general malaise, chilly sensations and fever are present, though the temperature rarely is higher than 102.5°. The breath is foul; there may be considerable tenderness of the throat, especially upon swallowing, and often there is considerable enlargement of the submaxillary glands.

In a case of average severity the symptoms abate in from three to four days time though the local appearance of the throat may persist for a variable length of time.

The duration varies from a few days to six weeks.

The prognosis is good, depending for the most part upon whether a mixed infection is present or not, and if so upon the nature of it.

The disease may be associated with diphtheria, syphilis, and the ordinary streptococcus and staphylococcus infections of the throat.

In the diphtheroid form of this disease Vincent states that there is no ulceration but simply a membranous inflammation in which only the fusiform bacilli can be isolated.

The diagnosis of Vincent's angina is made by careful microscopical and bacteriological examination of scrapings taken from the floor of the ulcerating surface. If swabs are made in the ordinary way the condition is apt to be overlooked owing to the fact that a great variety of micro-organisms are present in the superficial necrotic material and comparatively few fusiform bacilli and spirochaetae. One should take an öse made of stiff platinum wire and, after removing the superficial debris, scrape the floor of the ulcer and make cover slip preparations from the scrapings. These should then be dried in air and may be fixed and stained in various ways. Dilute carbol fuchsin, aqueous solutions of thionin, Löffler's methylene blue, Wright's stain and Giemsa's stain all give excellent results.

Smears stained by any of these methods show varying numbers of fusiform bacilli and spirochaetae. The fusiform bacilli vary in length from 6 to 14 microns and in width from 1 to 2 microns. They are generally straight, though they may be curved and have pointed extremities. The centres are swollen and not infrequently there is a globular swelling at the centre which bulges the cell wall to a marked degree. At times these micro-organisms appear as diplo-bacilli. No definite spore formation has been made out. Gram's stain gives variable results though usually decolorizing. In fresh preparations the bacilli usually are motile and may be very actively so. The spirochaetae are of variable length, one-half to one-third the thickness of the bacilli and showing from two to five and occasionally more twists.

At times these twists are not very definite and the micro-

organism has more the appearance of a spirillum than of a spirochaeta but again very definite corkscrew twists are present. These spirochaetae are likewise actively motile and stain with the same stains as do the fusiform bacilli though to a less degree. They decolorize by Gram's method of staining.

Cultural experiments have been rather unsatisfactory. The micro-organisms can be recovered in mixed culture from abscesses produced by inoculating mice and guinea pigs with material scraped from the base of the ulcer but the animals recover unless killed by contaminating streptococci, pneumococci or staphylococci. Cultures in artificial media have likewise been disappointing. The micro-organisms can be found in mixed cultures for several days and then disappear. Mixtures of bouillon and various body fluids have given the best results.

It is evident from these results that very little is known about the life history of the micro-organisms. Some observers consider them different stages of the same organism and others that the relationship is one of symbiosis.

Fusiform bacilli and spirochaetae have been described in other conditions than those of the tonsils.

Vincent states that they were present in small numbers in 22 out of 27 normal throats examined.

They have been found in the following conditions: ulcero-membranous stomatitis; alveolar abscess; pyorrhoea alveolaris; ulcero-membranous inflammation of the tongue; purulent periodontitis of the right upper jaw with phlegmon of the temporal muscle, purulent meningitis and secondary gangrene of the lung; abscess of the antrum of Highmore; peri-laryngeal abscess; abscess of the finger; abscess of the thigh, lungs and brain; empyema; pus upon the stump of tonsils after tonsillotomy; in the mucus from a case of dysentery.

The treatment consists in the local application of tincture of iodine, silver nitrate or some other antiseptic solution in conjunction with frequent gargles, the abstaining from solid food while the throat is sensitive and the observance of a moderate degree of quarantine until the throat clears up.

Inasmuch as the condition has been found associated with diphtheria in rare cases, cultures should always be taken in order to rule out the possibility of a coexisting diphtheria. If there is any question as regards the diagnosis, antitoxine should of course be given and in sufficient dosage to control diphtheria if present, though the presence of these micro-organisms in practically pure culture is against the probability of diphtheria. The fusiform bacilli differ from diphtheria in their greater size, their motility, their poor staining by Gram's method, their morphology and in their cultural properties.

Syphilitic ulceration may simulate this condition closely though the presence of large numbers of these micro-organisms would be against the probability of a coexisting syphilis. With Giemsa's stain these spirochaetae stain blue and rapidly while those of syphilis even if they were present (though they have not been found in tertiary lesions) would stain with difficulty and would take the pink stain. The history would also help out in the differential diagnosis.

In thrush the presence of the *oidium albicans*, the less tendency to ulceration and the more white and spreading character of the membrane would serve to differentiate the two conditions.

The ordinary staphylococcus and streptococcus inflammations of the throat differ from Vincent's angina in the usually more severe constitutional disturbances, in the former the absence of the fusiform bacilli and spirochaetae; the greater tendency to ulcerate in Vincent's angina.

Points which have been brought forward as evidence in favor of fusiform bacilli and spirochaetae being of etiological importance in Vincent's angina are these; their uniform presence in large numbers and practically pure culture; their gradual disappearance during the process of healing; the presence of so few other micro-organisms in the neighborhood of the active process; finally the transmissibility of the disease in certain cases reported.

As regards the four cases which I wish to report I will merely say that the bacteriological picture is perfectly characteristic in all of them, fusiform bacilli and spirochaetae being present in large numbers and in practically pure culture in the coverslip preparations made. This will be evident to all when you look through the microscope. The right tonsil was involved alone in three of the cases and both tonsils in the fourth case. There was a loss of tonsillar tissue comprising about one third of both tonsils in this case and the disease recurred one month and a half after no more micro-organisms could be discovered in the floor of the healed ulcers. All of the cases were males and two of these physicians one of whom is a pathologist. The subjective symptoms were about as described by Vincent and cultural experiments so far, as also animal inoculations, have resulted negatively. Otherwise there are no features of particular interest.

I have seen spirochaetae and fusiform bacilli morphologically identical with these twice in mixed culture in pus from gangrene of the lung and a few quite often in the feces especially where there was a tendency to diarrhoea. In a stool examined recently where amoebae dysenteriae were present I found large numbers of spirochaetae many of which were very actively motile. There were also a few bacilli of a morphology suggestive of fusiform bacilli and quite a number of trichomonads.



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## EDITORIAL

### Chicago's Biennial Health Report

To those who have learned to look to Chicago as the one city where things are done upon a large and thorough scale, the last Annual Report of the Department of Health, will come as no surprise. To some of us, however, we are confident that it will be at least news to be told that Chicago is the healthiest city in proportion to the population in the country, and the mass of interesting and valuable data given in this report, only confirms the common impression of the attention given to detail and of the ability to cope with things on a large scale so commonly attributed to the Windy City. Chicago's Commissioner of Health is indeed to be congratulated upon the extraordinary showing made in this report, a showing so remarkable that we venture to quote from it at length.

#### DURATION OF LIFE IN CHICAGO

One's attention is at once caught by the table published at the beginning of this report, setting forth graphically, the proportion of deaths at given ages to the total deaths at all ages in Chicago from 1875 to the close of 1905. The average age of decedents in Chicago during the year 1875 was 16 years, two

months, and 12 days; during 1885, it had increased to 20 years, 4 months, and 26 days; during 1895, there was a further increase in the span of the average life to 24 years, 7 months, and 9 days; and during the year 1905, the average age of the decedents had reached 31 years and 10 months, almost double the average duration of life 30 years ago.

Even more interesting are the figures given in detail for the various year periods during this time, especially so being the figures of the proportion of deaths at a given age to the total deaths at all ages. During 1875 for those under one year, the percentage was 38.3; during 1905 this had been reduced to 21.4; during the period from two to five years, the figures given are 8.3% for 1875, as against 4.3% during 1905.

Just as the average percentage during the early age periods has diminished, so has the age period, in proportion to all ages increased in the periods above 30, until in the age period over 70, the figures given are 3.8% during 1875 as against 10.1% during 1905. Thus it will be seen that measured by the average age of all who died in the city of Chicago 30 years ago and all those who died in 1905, the average duration of life in this city has nearly doubled during a single generation.

#### CHICAGO'S ACTUAL DEATH RATE

Up to November 22, 1905, the actual death rate in Chicago was 13.75 in 1000; the second lowest, we are told, in the city's history; the lowest annual death rate in Chicago's history occurring during the year 1904, when it was 13.62. This death rate is the lowest of any large city in the world with a population of 300,000 or over. As indicating the continued tendency to a lower death rate during the last 20 years, the following figures are of interest. In 1884, with a population of 629,885, the deaths numbered 12,471; in 1904, with a population of 1,932,315, the deaths numbered 26,311, an increase of only 13,840, not much more than twice as many, while the population was three times as great. The death rate in 1884 in Chicago was 19.63; in 1904 it was 13.62 per 1000. The following graphic percentages show this extraordinary betterment.

Percent of increase in population in 20 years, 1884-1904.....	209.9
Percent of increase in actual number of deaths in 20 years.....	110.9
Percent reduction in the annual death rate in 20 years.....	30.6

These figures mean that during the year 1904, owing to the improvement in Chicago's health, there was a saving of 11,620

lives as against the mortality which would have occurred had the death rate of 1884 prevailed during that year.

The actual death rate for the year 1905 was 13.67 per 1000, a rate 6.4% lower than that of Cleveland; 20.8% lower than that of Philadelphia; 25.4% lower than that of New York; and 26.1% lower than that of Boston. This record is truly extraordinary. The actual figures compiled from the reports furnished by the respective cities are given below. In this connection it is but fair to note that Chicago is the only one of these cities using the United States Census Office estimate of population, the other cities excepting Boston, computing their death rate on an estimate of population much in excess of the Census Office estimate.

#### SOME DISEASES THAT HAVE BEEN CONTROLLED

Interesting as showing the value of efficient sanitary administration, the greatest reductions of mortality have been shown among the diseases over which the Health Department have had the greatest and most direct control. Among the diseases which have thus shown a marked diminution not only in prevalence but in mortality rate, may be mentioned first small-pox. In the decade from 1885 to 1894 this scourge caused 1,072 deaths, a mortality rate of 0.83 per 10,000 of population, while during the last ten years, there were but 247 deaths or a mortality rate of 0.16 per 10,000 of population.

Diphtheria and croup which in the early decade carried off 13,566 victims, were responsible for only 8,168 deaths during the last 10 years. A mortality rate of 14.33 in the first period as against 5.2 in the second. A reduction of 63.7% and a constructive saving of 14,545 lives.

Even more interesting is the reduction of the mortality rate from typhoid fever and the diarrheal diseases. In the first decade typhoid fever caused 7,844 deaths, a mortality rate of 7.7 per 10,000 of population; in the second decade 5,392 deaths, a rate of 3.3 and a reduction of 57.1%. Had the death rate of the early decade prevailed, there would have been 7,348 more deaths from typhoid fever during the last 10 years.

Diarrheal diseases were responsible for 25,235 deaths in the early decade, with a death rate of 25.6% per 10,000 of population, while during the last decade there were but 24,165 deaths from this cause, with a mortality rate of 15. This reduction of 41.4% implies a saving of 18,193 lives; such results speak for themselves.



What are the agencies which have accomplished this remarkable results? Dr Chas. J. Whalen, the Commissioner of Health, from whose summary report the above figures are taken, tells us that this has been accomplished by constant supervision of the water supply, with publicity of its daily condition, regulation of lake dumping, *securing sewage diversion from the lake*, the correction of more than 100 local defects in tunnels and pumping stations in a single year, the promotion of the drainage channel, and by a vast amount of work in the way of chemical and biological examinations.

#### THE REDUCTION IN THE INCIDENCE OF CONTAGIOUS DISEASES

It must be conceded that the decrease in the occurrence of measles, scarlet fever and whooping cough is due to improved hygienic conditions as well as better nutrition and care. The mortality for measles during the first decade was 1.91, in the second 0.83, a decrease of 56.6% Scarlet fever has shown a decrease in its mortality rate of 55.5%, while whooping cough shows a decrease of 28.3%, a constructive saving for these three diseases of 4,887 lives by their reduced mortality.

#### THE CHIEF CAUSES OF DEATH FOR HALF A CENTURY

Perhaps the most striking table which appears in this valuable report is that demonstrating graphically by means of colored disks, the 12 chief causes of death in each decade during the period from 1856 to 1905 together with their mortality rate for each 10,000 population during each decade. During the first decade 1856 to 1865, the 12 chief causes of death are given in the following order, diarrheal diseases, consumption, diphtheria and croup, scarlet fever, nervous diseases, violence, typhoid fever, pneumonia, small-pox, measles, malaria, and heart diseases. Comparing the fifth decade 1896 to 1905 with this period of 40 to 50 years together, one is struck by the great diminution in the mortality rate for every specific disease with the single exception of that from pneumonia. That the mortality rate from pneumonia should have increased is undoubtedly explainable by reason of its occurrence in those individuals whose life has already been prolonged by the increase in the average duration. During the last decade, pneumonia has ranked as the first cause of death and consumption has at no time fallen below the third cause of death. Curiously enough, the deaths from violence have ranked as the fifth or sixth cause throughout all this period. Diphtheria has fallen from the third chief cause of death to the tenth. Typhoid fever from the

seventh to the 11th and scarlet fever from the fourth to the 12th, while small-pox has fallen below the first 12 causes of death. The figures given in this table are extremely interesting and will bear careful and critical analysis, showing clearly the results accomplished by modern hygiene and sanitation.

#### PROHIBITORY PRICES OF ANTITOXIN

In concluding this brief allusion to this extremely valuable report, we cannot fail to note the statement appearing in the report of Dr Spaulding, in reference to contagious diseases, in which he states that the almost prohibitory prices of antitoxin, established by some of the commercial houses, has been and continues to be responsible for many deaths from diphtheria. Dr Spaulding tells us that numerous examples which prove this assertion have been observed and in support of his assertion, cites the following instance as an illustration of frequent occurrences.

"A man earning by hard work two dollars a day with seven in family to feed, house, clothe and school, finds three of his children complaining with sore throat. He calls a doctor who suspects diphtheria. The father is told that it is best to give antitoxin at once and not wait for proof by microscopic examination. The cost of the first dose for the three children is \$15.00 besides the doctor's fee. The doctor is not able to say positively at the moment that the cases are diphtheria and the man hesitates to pay out \$15.00 on an uncertainty. The doctor is dismissed and goes away with a tortured mind. Two days later another doctor is called. The diagnosis is easy now. Antitoxin enough to use up the earnings of a month's labor is used, but too late—death claims two of the neglected children. If antitoxin were sold at a reasonable price such instances as just related would be exceedingly rare. When I related this instance to the agent of one of the high-priced producers of antitoxin, he replied that "the remedy is cheaper than coffins." And so we learn that the price of antitoxin is governed not by the cost of production, but by the price of coffins! The DEPARTMENT of HEALTH will furnish anyone antitoxin at half the manufacturers' present price and if need be furnish the remedy free, but many do not know this, and others with a self-supporting though meager income hesitate to receive charity or to pay two prices for a life-saving remedy, diphtheria is doing its deadly work upon the innocent."

If the facts are as given, and we have no reason to doubt them, this is surely a lamentable state of affairs. Whether or not such a condition exists in Cleveland we do not know.

We have quoted at length from this exhaustive report because we have been impressed by the indisputable evidence given of what it is possible to accomplish in a crowded city teeming with a large foreign population. What is possible for Chicago in the matter of public health is equally possible for Cleveland.

We have to acknowledge the Annual Report of the Surgeon General of Public Health and the Marine Hospital Service, for the fiscal year of 1905. This volume of over 400 pages, printed in small type, is a witness of the immensity of the field covered by our Marine Hospital Service and the Department of Public Health. The statistics given are extremely interesting. When one sees definitely before him the thousands of individuals who must be inspected by our medical officers, we are impressed by the fact that we apparently escape many plagues and epidemics.

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## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

**Pulmonary Edema:** W. M. L. Coplin, in the *Therapeutic Gazette* for April, states, that to be of any value, the treatment of acute pulmonary edema, must be prompt and energetic. Grossman recommends atropin, but those who have tried it have found it disappointing. Huchard believes that atropin intensifies the bronchopulmonary paresis, impedes diureses, and is consequently not only unsafe, but dangerous. Tiessier suggests that amyl nitrite may be of value, but Coplin knows of no one who has tried it. Digitalis, or better digitalin camphor in the form of camphorated oil, caffeine or hypodermics of ether may be tried. All authors who have tried the remedy commend bloodletting as the surest, safest and the most prompt measure for combating acute pulmonary edema. It removes toxic substance, lowers the venous tension, rapidly lessens the pressure on the right side of the heart, and therefore diminishes the cardiac embarrassment, antagonizes any tendency to pulmonary congestion, and exerts a sorbefacient influence on any exudate in the interstitial tissue of the lung. The quantity of blood withdrawn must be determined by the tension and the ability of the patient to withstand its loss. Huchard advises the extraction of 300 cubic centimeters (10 ounces) to 400 cubic centimeters (13 ounces). The earlier phlebotomy is practiced the better the results. If not resorted to promptly the period in which the most striking and greatest benefit is to be expected rapidly passes. Wet and dry cups are less efficient than the free and more rapid withdrawal of blood from a vein. Caffein, strychnin, musk, camphor, digitalis, ether and alcohol are useful to supplement the good effects of bleeding, but cannot in any way be regarded as substitutes. A knowledge that the attacks are likely to recur and may at any time prove fatal suggest the importance of precautionary measures, and Huchard insists on the constant supervision of the renal functions, and strongly advises the use of a milk diet.

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**Hepatic Cirrhosis:** In the *International Clinics* (Vol. IV, Fifteenth Series), Sir Dyce Duckworth, states concerning the treatment of the later stages of cirrhosis of the liver, that if no hemorrhages have occurred, we may hope to secure benefit by repeated tapplings, for the ascites recurs, sometimes very rapidly. He refers to one



case in which paracentesis was performed over 90 times. Further benefit may be sometimes secured by the prolonged use of Baillie's pill of mercury squill and digitalis, or by quinin with nitrohydrochloric acid, and ammonium chlorid. The diet must be simple and unstimulating, no alcohol being employed unless specially indicated. Some patients may live on for three or four years after exhibiting some of the symptoms of advanced cirrhosis. Much will depend on their general health and constitution, and on the extent of damage already suffered by the liver. The process may certainly be arrested to some extent, although the hepatic functions must always be inadequate, and life precarious. It is right to add that we do not now see so many cases of the worst forms of cirrhosis of the liver as we did formerly. This means that there is certainly less hard drinking now than then, although as we well know, there is still sadly too much of alcoholic excess in all communities. We rise from the study of hepatic cirrhosis with a firm conviction that prevention is better than cure.

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**Strontium:** S. E. Earp, in the *Central States Medical Monitor* for April, summarizes the use of the strontium salts. Ten grains of lactate of strontium taken three times a day acts well in nephritis. The amount of albumin is decreased, but the urine is not increased. The salicylate of strontium is an intestinal antiseptic and anti-rheumatic, dose 10 to 15 grains. The iodid of strontium is milder in action than the potassium iodid, and given in about the same dose, but is probably not so reliable although less likely to disagree with the stomach. The bromid of strontium in 10 to 15 grain doses may be used as a nerve sedative and antinephritic. The acetate in doses of 40 grains twice a day for several days has been used as an anthelmintic. The arsenate of strontium in doses of 1/20 of a grain is an antiperiodic and alterative. It is sometimes given in chronic skin diseases as is true of other arsenates. He also states that yohimbine is an alkaloid of cameroon a product of Africa. It is an aphrodisiac, and as a local anesthetic differs from cocaine by producing local hyperemia, while cocaine produces anemia. The fact that it is decomposed by light, makes it necessary to keep it in bottles covered by tin foil and even then it should be kept in a dark place. As an aphrodisiac the dose is one-eighth of a grain, or five to 10 drops of a two percent solution.

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**Infantile Scorbutus:** In the *Journal A. M. A.*, John Lovett Morse, gives the treatment followed in 50 cases of infantile scorbutus. Recovery from the scurvy occurred in all cases although a few died later from coincident diseases. The food was not changed in 15 cases, while in all the others the food was changed, the attempt being made in every case to give not only a more rational food, but one more suitable for the individual baby. Proprietary food mixtures were changed to milk mixtures, and milk mixtures to better milk mixtures. Sterilization was always stopped and pasteurization was stopped if the milk supply and time of year permitted. Peptonization was stopped in every case. In fact the food was made rational as to its chemical composition and everything tending to destroy "freshness" as far as was possible omitted. One patient was given lemon juice. All the others were given orange juice, except two that were given beef juice. Eight others also took beef juice in addition to

the orange juice. Scurvy developed in one who was taking one ounce of of beef juice daily. The amount of orange juice given varied considerably. Seven patients took one tablespoonful daily; 20, two tablespoonfuls; and one, four tablespoonfuls. Four took the juice of half an orange, and seven the juice of a whole orange daily. In one case in which there was no result from 10 drops of lemon juice three times daily for a week, recovery was very rapid on the juice of half an orange daily. In another case there was no improvement noted in two days while taking one tablespoonful of orange juice daily, but when the amount was increased improvement was rapid. It seems safe, therefore, to conclude that at least one tablespoonful of orange juice is necessary daily and that two tablespoonfuls, or the juice of half an orange is amply sufficient to bring about a rapid cure. Pain and tenderness were usually the first symptoms to yield to treatment and were soon followed by the return of power to the extremities. Improvement in the condition of the gums usually began later and progressed more slowly. Marked improvement in the swelling, even if it was extreme, was always noticeable in a week. The protrusion of the eye was gone in six days. An analysis of the results of the treatment shows that the mildest cases were well in two days, and that many cases were entirely well in five days. Almost all showed marked improvement in three or four days. Pain and tenderness were always gone in one week, while the gums were rarely normal before one or two weeks. Most cases were well in two weeks, while recovery was always complete in three weeks.

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**Acute Rheumatism** Samuel A. Glick, in the *Medical Review of Reviews* for March, believes that from a therapeutic viewpoint, all acute rheumatic conditions have this in common that the best remedial agents belong to the salicylic acid group. How the salicylates act is not well understood. In the case of persons with sensitive digestive organs and in weak subjects, and in children in general, it is preferable to resort to one of the newer salicylic derivatives, rather than the salicylates. He prefers aspirin as more closely approximating in efficiency to the salicylates than any other, and at the same time manifesting no irritating effect upon the digestive tract. Under its use he has observed a notable absence of unpleasant effects upon the nervous system and of signs of cardiac depression. In connection with its internal use he has employed mesotan locally, which penetrates the skin and sets free salicylic acid. The pure mesotan is too irritating and he dilutes it with an equal amount of olive oil.

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**Whooping Cough:** In the *New York Medical Journal* for April 14th, Adolph Decker asserts that in whooping cough the main object of the physician must be to stop the coughing attacks or at least to lessen their severity. For this reason it is advisable even in the beginning when an exact diagnosis is impossible, after the medicines for an ordinary cough have been unsuccessful at once, to start with the treatment, as it is most effectual in the early stages and may often abort the course of the disease. The best remedy is naphthalin. About half an ounce of naphthalin is put into a saucer, and slowly heated by means of a small alcohol lamp, gas or kerosene may just as well be used, but care must be

taken that the flame does not reach the powder itself. In about 10 or 15 minutes a white vapor is produced, which, when inhaled lessens the severity and the number of the attacks, and in some cases prevents them altogether for many hours. The patient must not be brought near the naphthalin, it is sufficient that he is in the same room. One or two applications in 24 hours will generally suffice. As an adjuvant, a mixture containing belladonna and antipyrin is given internally. At the same time a bandage is put around the lower part of the chest as tight as the patient can stand it, but not so tight that it would interfere with breathing. These three measures in combination, any one of which alone will very seldom fail to have a beneficial influence, will benefit and cure almost every case in a much shorter time, and will make the patient much more comfortable. The general health of the patient must be looked to and a rational diet prescribed. It is criminal to advise change of air on account of the contagiousness and grave nature of the disease.

### Apocynin:

In the *Columbus Medical Journal* for March, Woodbridge Hall Birchmore, calls attention to the value of apocynin as an eliminant in chronic jaundice. He states the first duty in these cases is to put an end to the formation of poisons within the intestine, and the best method of cleansing the intestine is by means of the sulphate of magnesia, either pure or in the more pleasant forms on the market, as an effervescing mixture. Experience shows that the first dose should be taken at least an hour and a half before breakfast, so as to wash out the stomach and intestine. Other dose should be taken before lunch and dinner, and again late in the evening and this last dose should be made acid with lemon juice. This should be continued till the physician is satisfied it is no longer needed. Intestinal disinfectants are then indicated and he places special stress on the value of apocynin cannabinum, as an eliminant of the poison. He learned that this was one of the ingredients in a nostrum much used by women for clearing or "improving the complexion." He has used it for several years, his best results having been obtained with the acetate and chlorid of apocynin, and a very small dose should be given, say two or three one-hundredths of a grain twice a day. If an increased flow of urine is produced, the dose is too large, but in a properly proportioned dosage it will be found most effectual, double and even triple the amount of the celloid "pigment like" poison being eliminated. In some cases as shown by the hue of the skin, improvement is obtained within a week. Boldin from *Pneumus boldo* in the same dose is useful as an alternate, and euonymin is also sometimes of value.

**Vaso Constrictors:** *Merck's Archives* for April, states that it has been shown that no systemic reaction is obtained from adrenalin when taken into the stomach. Even when it is injected under the skin, the effect of adrenalin is purely local. However, there are drugs which produce vasoconstriction of the internal vessels with certainty. The intravenous administration of adrenalin will accomplish this. The local styptic action of stypticin has been ascribed to a specific effect on the vasoconstrictors, but it is not a blood coagulant. Ergot, the digitalis group, lead and other substances are effective when given either by mouth or subcutaneously. This vasoconstriction from differences of innervation or of muscular development does not affect all vessels equally. Experi-



ments show that the vessels of the splanchnic area are much more intensely constructed, than those of the muscles, brain and lungs. In fact the effect upon the lungs and brain is so feeble that the tendency to constriction is entirely overcome by the rise in blood-pressure produced by the more intense constriction in other organs, and there then results a dilatation of the vessels and congestion of these organs. W. E. Dixon in the *Lancet*, shows that all drugs which are commonly employed to produce vasoconstriction, though differing in time, persistence, and mode of action, bring about the same ultimate result, adrenalin acting on the sympathetic endings, ergot acting through certain nerve centers, the digitalis group, with other drugs, such as veratrin, barium, and lead, acting upon the plain muscle fibres, through the normal functional development of the vessels maintain the same order of intensity of effect. It can be seen that the use of these drugs in hemoptysis and hemorrhage of the liver and brain is not only useless, but in fact, distinctly detrimental.

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**Arterial Pressure:** *Medicine* for April, states that the high or increased vascular pressure which accompanies certain kidney lesions has long been looked upon as an unfavorable symptom. Direct therapeutic interference has been undertaken with a view of lowering the arterial pressure, and the treatment of these conditions has been based upon such a theory. Krehl (*Dent. Med. Woch.*), claims that the process is by no means so simple as we have been led to suppose. He regards the high arterial pressure in a sense as a conservative process claiming that the increased vascular pressure will lead to an elimination of substances by the kidneys that would otherwise poison the organism. The correct theory of lowering vascular pressure is to eliminate from the system, the toxic agent. This can be done by a milk diet. The value of the latter in lowering vascular pressure is due to the fact that it eliminates from the diet, those substances which call for increased activity on the part of the kidneys. In contracted kidney an increased arterial pressure is needed to compensate for the defective functioning. The proper plan of treatment is to lessen the amount of work which the kidney will have to do, when there will be a prompt fall in arterial pressure. It is the necessity for this high arterial pressure that enables the system to resist so effectually, efforts to lower it. If the high arterial pressure is conservative, it may be taken as an index of the efforts of the kidney to get rid of certain poisonous products. The elimination of these would lead to lowered vascular pressure, and hence less work would be thrown on the kidneys.

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### St. Alexis Hospital Alumni Association

The forty-second Regular Monthly Meeting of the St. Alexis Hospital Alumni Association was held at the Hollenden Hotel on Thursday, May 3d, 8 p. m..

Papers: Some of the Difficulties attending Labor, with Reports of Seven Typical Cases, Albert C. McGannon, M. D.; General Anesthetics, Myron Metzenbaum, M. D.

MYRON METZENBAUM, M. D., Secretary,  
1242 Willson Avenue.

## Academy of Medicine of Cleveland

The thirty-eighth regular meeting of the Academy was held at 8 p. m., Friday, May 11th, 1906, in the Assembly Room, Hollenden Hotel. Program: Oral Infection, Dr W. H. Whitslar; Observations on Some Diseases of the Intestines and Peritoneum Occupying the Borderland between Internal Medicine and Surgery, Dr John C. Hemmeter, Baltimore, Md

CLYDE E. FORD, M. D.,  
Secretary.

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### THE CLINICAL AND PATHOLOGICAL SECTION

The twenty-fourth regular meeting of this Section was held Friday, May 4th, 1906, at 8 p. m., at the Cleveland Medical Library. Program: Result from the Bloodless Operations for Congenital Hip Dislocation, with Presentation of a Bilateral Case, Dr. W. G. Stern; Hebotomy (Pubiotomy), Dr Arthur H. Bill. A Case showing Abdominal Ptois, Hyperchlorhydria Regurgitation and Rumination, Dr. G. W. Moorehouse; A Clinical Report on the Treatment of Hypertrophy of the Prostate Gland, Dr. W. E. Lower.

JUNIUS H. MCHENRY, M. D.,  
Secretary.

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### EXPERIMENTAL MEDICINE SECTION

The twenty-sixth regular meeting of the Experimental Section was held at 8:00 p. m., Friday, May 18th, 1906, at the Cleveland Medical Library. Program: The New Pharmacopoeia. A Critical Review of its Medical Bearings, with Demonstration of the Newer Official Preparation, Dr H. V. Army.

DR T. SOLLMAN,  
Secretary.

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## Book Reviews

Biographic Clinics, Vol. III. Essays Concerning the Influence of Visual Function Pathologic and Physiologic upon the Health of Patients, by George M. Gould, M. D. Editor of American Medicine, Author of "An Illustrated Dictionary of Medicine, Biology, etc.," "Borderland Studies," "The Meaning and the Methods of Life," etc. Philadelphia. P. Blakiston's Sons & Co., 1012 Walnut St., 1905.

As the title page indicates this is a volume of "Essays concerning the influence of visual function pathologic and physiologic upon the health of patients." The two preceding volumes upon the same subject are already well known to the profession and have been read with pleasure as well as profit by many. In the present book he sketches briefly two additional biographies showing the relation of eyestrain to the "life tragedy of John Addington Symonds" and to "Taine's ill-health." Except the introduction all the chapters in this volume have previously been published elsewhere in various medical journals and are here brought together because of their unity of purpose—to show the relation of eyestrain to the general health. The chapter upon "The New Ophthalmology" is largely a review and reiteration of the conclusions promulgated in his two previous volumes, while the chapter upon "The Reception of Medical Discoveries" is

chiefly occupied in an attack, at times rather virulent, upon those who disagree with him.

His views upon migraine have been the cause of much discussion, at times rather bitter. While some medical men especially neurologists and even some oculists think migraine is very rarely due to eyestrain. Gould thinks it "in its so-called typical or in its multitude of atypical forms, is but one of the manifestations and results of eyestrain and is if not absolutely, almost always one of the products of the malfunction of astigmatic eyes" and in another place states that "at least 99% of migraine is caused by eyestrain." I am inclined to believe that the truth lies somewhere between these two extremes, that undoubtedly not a few cases of migraine are due to eyestrain and in all cases the eyes should be thoroughly examined.

Almost everyone has seen cases corresponding to those described in the chapter upon "Subnormal Accommodation and Premature Presbyopia." While he states in the history of some of the cases recited that the examination did not show the power of accommodation to be below the normal yet it would have been much more satisfactory if he had reported the exact power of accommodation of each eye, and especially is this true in those patients for whom he added a different strength of lens to the distance correction for the two eyes. Such measurements would indicate the reasonableness of such a procedure, would give some indication of the amount that should be added to each lens so as to make up for the inequality in the power of accommodation of the two eyes, and should be taken and reported with the new lenses as well as without them.

A very suggestive chapter is that upon "The Optic and Ocular Factors in the Etiology of the Scoliosis of School Children" and the "Visual Function as the Cause of Slanted Handwriting, its Relation to School Hygiene, School Desks, Malposition, Curvature and Myopia." If the doctor is correct, and certainly his reasoning is very plausible, this subject should certainly receive more attention from the orthopedic surgeon and also from the proper school authorities.

In a chapter upon "Dextrality and Sinistrality" he evolves his theory of the dominant eye, and elaborates upon "the pathologic results of dextrocularity and sinistrocularity and shows among other things that head-tilting is sometimes the result of an oblique astigmatism in the dominant eye."

Two chapters by other writers have been included in this volume, one upon "Eyestrain as a cause of Headache and other Neuroses" by Simeon Snell of Sheffield, England, and "Slight Errors of Refraction and their Influence on the Nervous System" by C. E. Pronger of Harrogate, England. Both articles are strongly confirmatory of Dr Gould's position in regard to the relation of the visual function and eyestrain to the general health.

The volume can be most heartily commended to the careful perusal of the general practitioner, who, even if he cannot agree with all of Dr Gould's conclusions and thinks some of the statements overdrawn and the importance of eyestrain exaggerated, will yet find much food for thought and many suggestions valuable in the treatment of their patients. Dr Gould is to be commended for the good he has accomplished in bringing the general practitioner and, I might also add, some oculists, to realize more fully the importance of this subject



The Psychic Treatment of Nervous Disorders; (The Psychoneuroses and Their Moral Treatment). By Dr Paul Dubois, Prof. of Neuropathology at the University of Berne. Translated and Edited by Smith Ely Jelliffe, M. D., Ph. D., Visiting Neurologist City Hospital; Instructor in Materia Medica and Therapeutics, Columbia University, New York; and William A. White, M. D., Superintendent Government Hospital for Insane, Washington, D. C.; Professor of Nervous and Mental Diseases, Georgetown University, Washington, D. C.; Professor of Mental Diseases, George Washington University, Washington, D. C. Published by Funk & Wagnalls Co., New York and London, 1905.

This is said to be the age of books. If quantity is the measure, then indeed, the statement is true. But how few are really worth the ink and less the labor of reading.

In this sea of commonplace literature which seems ever at flood, how rarely we read without recognizing and resenting the fraud perpetrated upon us by some industrious but mistaken quill driver who believes that he bears a message. Perhaps I am pessimistic—made so by the average character of current medical literature. I hope I am. For then my praise of Dubois' originality and excellence will be felt to be doubly sincere. The habit of optimism in all things is not an healthy condition of the mind. It is too much like a salad without the acid.

The proposition of Dubois to consider the functional neurosis as psycho-neuroses and from a psychic standpoint is reasonable and recommended by common sense. His demands that a psychic disease be treated with psychic measures is just, and the crystalization of ideas that have been in a state of solution in the medical thought and lore of nearly twenty centuries.

The Psychic Treatment of Nervous Disorders is one of those rare books that you may read from cover to cover with an interest that will not pass a paragraph.

The radical positiveness of the writer, his great common sense amounting, in his case, to actual genius will appeal to you and convert you to this sensible departure in the treatment of the functional disorders which are increasing under the influence of the artificial and strenuous existence of our veneer civilisation.

No one practicing medicine, or one of its specialities can afford to neglect a careful reading of this truly great book. It is not even hoped that you will agree with all the author says. You will not. But so much sound sense and helpful suggestions lie throughout the reading that you will forget your contention to applaud his genius. It is not a work replete with profound psychic science and exact data, but better, far better—one that will cause you to think, and to think deeply, happily and helpfully. And when one thinks true knowledge and results follow.

The translation has preserved the racy frank attraction of the author's style. The printer and binder have made reading easy with a dull finished paper and large clear type. Buy, read and ponder it well. It will broaden you,—help you.

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A Text-book on the Practice of Gynecology. For Practitioners and Students. By W. Easterly Ashton, M. D., L. L. D., Fellow of the American Gynecologic Society; Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Second Edition, Revised. Octavo of 1079 pages, with 1046 original line drawings. Philadelphia and

London: W. B. Saunders Company, 1906. Cloth, \$6.50 net; Half Morocco, \$7.50 net.

No greater evidence of the popular appreciation of this text-book could be asked than the demand for a second edition within so short a time after the first appearance of the work. In the September number of the Journal we had the pleasure of calling attention to the great value of Dr Ashton's work on gynecology, emphasizing particularly the thoroughness with which the author had given the necessary procedures for the many varied operations, and the technic of the various treatments specifically described. We know of no equally comprehensive treatise which supplies the general practitioner with the multitude of necessary details and the procedures necessary for arriving at a correct diagnosis, and for the subsequent execution of whatever operations may be found necessary.

The use of heavy type and the spacing of the important descriptions in the body of the text, add much to the value of the work as a volume for reference. The author has stated in his preface to this edition that the changes made at this time are necessarily few in number, being chiefly limited to certain typographical errors and the altering of certain illustrations. There is the same absence of plates dealing with the microscopical appearance of pathological conditions as noted in our former review. It is probably true that this omission is in no sense an important one, as the average practitioner has neither time nor facilities to devote to such examinations and the actual work is probably better relegated to the pathologist, though in our judgment, the addition of certain plates, descriptive of the pathological changes, would add to the completeness of the work.

All that we said of the earlier edition, applies equally at this time. The careful directions are such that the most inexperienced could hardly go astray in his technic, if he followed the text carefully. Chapters devoted to hydrotherapy, diatectics, blood examinations, and X-ray treatment are included. This work is without doubt, the most complete and exhaustive text-book in the English language for the general practitioner, and student and it will undoubtedly continue to win the same approbation in the future that has been accorded it since its first appearance, scarcely six months ago.

The paper, typography and press work are all that the publisher's imprint implies. The copious illustrations throughout, largely diagrammatic in character, add immensely to the clearness of the descriptive text. A complete index concludes this valuable work.

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Culbreth's *Materia Medica*. A Manual of *Materia Medica* and Pharmacology for Students and Practitioners of Medicine and Pharmacy. Comprising all Organic and Inorganic Drugs which are and have been official in the United States Pharmacopoeia, together with important Allied Species and Useful Synthetics. By David M. R. Culbreth, Ph. G., M. D., Professor of Botany, *Materia Medica* and Pharmacology in the University of Maryland, Departments of Medicine, Pharmacy and Dentistry. Fourth edition. Revised to accord with the new U. S. Pharmacopoeia, 8th Decennial Revision. Octavo, 976 pages, 487 illustrations. Cloth, \$4.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1906.

This, the fourth edition of this work within nine years, is arranged in conformity with the eighth revision of the U. S. Pharmacopoeia, although

the doses of that work are not always followed. It is practically a new work, many new illustrations having been added, while the doses given are stated in the metric and the apothecaries' system for easy comparison. It is subdivided into six parts, each amply considering the drugs under its heading. The appendix comprises poisons, prescription writing and tables of weights, measures, etc. The work is largely devoted to *Materia Medica*, although the therapeutic uses of each remedy are concisely stated.

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**Cushny's Pharmacology.** A Text-book of Pharmacology and Therapeutics: The Action of Drugs in Health and Disease. By Arthur R. Cushny, M. A., M. D., Aberd., Professor of Pharmacology in the University College, London; formerly Professor of *Materia Medica* and Therapeutics in the University of Michigan. In one handsome octavo volume of 752 pages, with 52 illustrations. Cloth, \$3.75 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1906.

This, the fourth edition of Prof. Cushny's book, is in accordance with the latest revision of the U. S. Pharmacopoeia, and also embodies the recent researches and advances in the subjects of which it treats. Attention is especially called to the new features brought out by Embley and others in regard to the action of chloroform, and its dangers, and also to the change in the views held as to the effects of wood alcohol in man. The classification followed is that adopted by Buchman and Schmiedeberg, with some slight alterations which seemed to be demanded by recent progress. It presents the present position of pharmacology most completely and is an authoritative work on the subject. A most useful index for the physician is that of the classification of drugs from a therapeutic standpoint.

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### Books Received

**Abdominal Operations**, by B. G. A. Moynihan, M. S., (London), F. R. C. S., Senior Assistant Surgeon to Leeds General Infirmary, England. Octavo of 695 pages, with 250 illustrations. W. B. Sanders.

**A Treatise on Diagnostic Methods of Examination**, by Prof. Dr H. Sahli, of Bern. Edited, with additions, by Francis P. Kinnicutt, M. D., Professor of Clinical Medicine, Columbia University, N. Y., and Nath'l Bowditch Potter, M. D., Visiting Physician to the City Hospital and to the French Hospital; and Consulting Physician to the Manhattan state Hospital, N. Y. Philadelphia and London. W. B. Saunders & Company, 1905.

**A Treatise on Surgery.** In two volumes, by George R. Fowler, M. D., Examiner in Surgery, Board of Medical Examiners of the Regents of the University of the State of New York; Emeritus Professor of Surgery in the New York Polyclinic, etc. W. B. Saunders & Company.

**A Reference Handbook of the Diseases of Children.** For Students and Practitioners, by Prof. Ferdinand Fruhwald, of Vienna. Edited, with additions, by Thompson S. Westcott, M. D., Associate Professor of Diseases of Children in the University of Pennsylvania. W. B. Saunders & Company.

The Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of



Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume 11. General Surgery, edited by John B. Murphy, A. M., M. D., LL. D., Professor of Surgery in Rush Medical College (In affiliation with the University of Chicago), Series 1906. Chicago. The Year Book Publishers, 40 Dearborn Street.

The Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, Volume 1. General Medicine, edited by Frank Billings, M. S., M. D., Head of Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A. M., M. D., Professor of Medicine, Chicago Clinical School. Series 1906. Chicago. The Year Book Publishers, 40 Dearborn St.

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## Medical News

Dr Russell, of Cardington, recently moved to Belleville.

Floyd Stamp, of Atlantic City, is visiting his mother at his old home, Alliance.

O. H. Quayle, of Madison, has been confined to the house for a few days by illness.

C. S. Hitchcock and wife, of Toledo, are home from a three weeks' rest in Michigan.

P. D. Bishop, of Andover, is recovering from a very severe attack of the rheumatism.

Todd Caris and family, of Sulphur Springs, have gone to Johnsville where he will locate.

F. S. Pomeroy, of Chardon, for many weeks sick with typhoid fever, is steadily improving.

E. G. Myers and wife, of Canton, have returned from Florida where they spent the winter.

W. P. Harris, of Bellaire, left May 15 for Washington, D. C., where he will remain for some time.

Dr I. J. Kerr is in New York pursuing special studies in diseases of the nose, throat and chest.

F. P. Graham, of Lisbon, who has been critically ill with pneumonia for some time, is now improving.

C. G. Dew, of Nelsonville, who went to Arizona last fall for the benefit of his health, has returned.

F. W. Robers and wife, of Findlay, have gone to New York City, where they expect to spend a month.

Dr Mercer, of Bowling Green, recently moved his family to Ridgeville, Henry County, where he will continue his practice.

Thomas H. Shorb, of Canton, returned recently from Cincinnati, at which place, he has been taking a course of study.

H. F. Billmeyer, of Bellevue, left May 15, for Onsted, Michigan, where he will spend the greater part of the summer.

W. M. Tuller, of Bowling Green,, has gone to Mt. Forest, Michigan, to spend a few weeks on the Beatty and Tuller ranch.

C. S. Judy, of Miamisburg, has returned from Chicago where he took a post graduate course in one of the leading hospitals.

Ben. F. Syman, of Springfield, graduated with honors from the Denver and Gross College of Medicine in the Colorado Capital.

Thomas S. Phillips, of Springfield, has returned from Mudlavia Springs, where he has been visiting his mother and brother.

H. R. Garst, of Franklin, left a short time ago for New York, from which point he embarks for Bombay, India, his future field for work.

The commencement exercises of the Ohio Medical University, College of Medicine, was held in Memorial Hall, Columbus, Tuesday evening, May 8.

Frank Hupp and wife, of Wheeling, will leave about June 10 for Europe. They intend remaining over two months and will return about September 20th.

Dr and Mrs. Stewart, of Church Hill, have arrived home after spending the winter at different points in the south for the benefit of the Doctor's health.

M. Uberroth, for many years a practising physician in New Riegel, will move to Tiffin in the near future and will occupy the office of the late W. H. Focht.

Dr and Mrs. Thos. Chas. Martin return to Cleveland Saturday, June 2nd. The report published in the Washington papers that they had removed to Washington permanently is a mistake.

U. P. White, of Athens, has disposed of his interest in the medical practice to his partner, Dr. Merwin, and left the first of June for Oklahoma, where he will locate for the practice of medicine.

H. H. Jacobs, of Akron, has been elected president and chief of the City Hospital physicians and surgeons. The election is made by the staff of physicians and surgeons who are chosen by the Hospital Directors.

The Greene County Medical Society held a meeting in Xenia on May 3, the principal address being made by Dr Heidingsfield, of Cincinnati, a specialist on skin diseases. His subject was skin cancers. Dinner was served at the Grand Hotel.

W. A. Smith was the essayist at the meeting of the Clark County Medical Society on May 7. His subject was "Nocturnal Cough in Children." The paper was discussed by Noah Myers, C. S. Ramsey, S. R. Hutchings and G. F. Brubaker.

Dr Beebe, of Sidney, has been appointed from the Ohio State Board of Medical Registration and Examination, by Governor Pattison, to represent the Board at the Second Annual Conference of the Council on Medical Education of American Association. Meeting to be held in Chicago.

The May meeting of the Logan County Medical Society was held Thursday, May 3, at the office of C. E. Huston, in Rushsylvania and was well attended. The annual meeting of the Society will be held June 7, at Orchard Island, the essayists to be J. S. Deemy and Arthur J. McCracken.

The twenty-sixth regular session of the Lake County Medical Society was held in the Assembly Room, Parmly Hotel, Painesville, at 8 p. m., Monday May 7th. Program: Report of Cases; Presentation of Clinical Cases; "Gynecological and Abdominal Work," James C. Wood, Cleveland; Discussion was opened by C. F. House and C. M. Hawley. J. W. Lowe, Secretary.

About twenty-five of the physicians of Athens County met in the Court Room, at Athens, on May 2, for the regular monthly meeting of the Athens County Medical Society. C. S. Hamilton, Dean of the Starling

Medical College of Columbus, was present and addressed the Society upon "Some Practical Applications of the Theory of Asepsis." The next regular meeting of the Society will be held on June 5.

The Stark County Medical Society held a meeting Tuesday afternoon, May 15 with about twenty members present. S. P. Barnes, of Massillon, read a short paper, after which a discussion on "Shock" led by J. P. Dougherty, of New Berlin, took place. The closing of the meeting was a report of cases by Frank Kahler, H. M. Schuffell, and M. N. Bower, of Uniontown. The next meeting will take place sometime during the month of September.

Harry G. Southard, of Marysville, who recently graduated from the Starling Medical College, has received a fine appointment that will engage his attention for the coming year. He has been chosen as one of the two members of the Starling graduating class to serve as special interne at the St. Francis Hospital, in Columbus. The appointment is a competitive one to the members of the graduating class, and is eagerly sought after because of the wide field of experience it offers.

The Delaware County Medical Society met in regular monthly session Friday afternoon, May 4, discussing several important topics. The first address of the session was given by D. C. Fay, of Ostrander, upon the analysis and composition of water. Blee Smith, of Columbus, gave the second paper of the afternoon, his subject being "Intestinal Keratitis." The next meeting, to be held in June, will be an open meeting for the discussion on ways and means of preventing tuberculosis.

The Jefferson County Medical Society held a meeting in Stubenville, May 15, at 1:30 p. m., with the following program: Call to order by the President; Reading minutes of last meeting of the Secretary; Clinical Cases by the Society; Report of Case of Rupture of the Heart, by Drs Watt and Collins; "Fractures of the Femur," semi-clinical, by E. R. Giesey; Reports from the State meeting by attending members; unfinished business; miscellaneous business; announcements; adjournment.

With a small attendance, the Hancock Medical Society was called to order at 8:45 Thursday evening, May 3. The secretary Nelia B. Kennedy, read the minutes of the last session, which were approved. J. H. Varnum, of Benton Ridge, opened the program with a paper on "Post-Partum Hemorrhage." Drs Tritch, Hartman, Ewing, Williamson, Saunders and Hersh took an active part in the discussion of the subject. J. A. Kimmel and William Metzler were on the program for papers, but could not be present. President Hersh appointed Drs Linaweaver, Tritch and Wilson a committee to arrange for the social meeting to be held July 1. It is said this meeting will be held in Dr Titch's new log cabin on his farm in Marion township. The secretary submitted the following report: Number of members, 34; added this year, 6; number dropped, 1; number of meetings held, 11; papers, 16; guests, 2; average attendance, 21; surgical papers, 4; medical, 2; ethical or commercial, 2; other subjects, 1; cases presented, 2; cases reported, 8; specimens presented, 2; number of physicians in county not members regular, 33; irregular, 9.

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## Deaths

Henry Clay Black, Freeport, died April 25, age 80.

Homer S. Quinn, of West Jefferson, died May 17, at the age of 67.

Wylie T. Mitchell, of Portsmouth, died of dropsy on May 11 after an extended illness.

William H. Focht, of Tiffin, a well known physician died Saturday, May 12, with brain trouble.

E. H. Chilcote, a prominent physician of Bloomdale, dropped dead at his home, Perrysburg, May 4.



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## Child-Birth in Burma

JOHN ROSS STEWART, M. D., CLEVELAND

The comparisons of all nations in regard to child-birth are of the greatest interest.

The trials of the mother in Burma are extreme and of the severest nature. When the tiny stranger is ushered into this world, the mother begins the native treatment, which is to rid her body of the accumulation incident to bearing children. A method which smacks of cruelty and also of the past ages.

At first her body is rubbed over with a certain substance called nan-win, a secret preparation still unknown to the males. A large fire is started just outside the hut, and far enough away to prevent burning the slight structure, which is generally constructed of materials such as bamboo, palms, and perhaps teak. The hut soon begins to warm up, and over the mother the midwife piles all the blankets and covers obtainable.

Next, a mysterious tea is brewed by the attendant. This is green in color and called "sayshen," the ingredients of which no one knows except the midwife and attendant. The poor mother is now obliged to drink this peculiar green preparation at stated intervals during the next seven days.

When one thinks of the hot season of Burma, and with added hot drinks, piles of covers, and fires on the outside of the house, one wonders that many survive. The end is not just here, for the midwife orders hot bricks wrapped in cloth, to be placed between the blankets. Meanwhile, a new preparation is being prepared from a native plant called "ny-gelia-sativa". This is pounded and heated and shaped into a round, ball-like mass. The mother is to smell it each day, just as we do our smelling-salts. Finally, at the end of seven days, a large open-mouthed vessel, which holds

gallons of water, is set up over the fire and the water in it is stirred up with certain drugs. When this commences to boil and steam, the mother, rather weak from the other treatments, is to sit over this steaming vessel, with many razees or coverings about her. This crude turkish bath ends the trying-out process, and often the life of the poor mother.

Statistics show a slightly higher death-rate than that of other nations and yet, from the severe treatment in use, one would naturally look for a very high percentage. In large cities and towns more modern ideas prevail. English-speaking doctors are doing much to help on the good cause, and it is noticeable among the women who have children that they do not age so quickly. The Burmese marry early, and the young girl of fourteen or fifteen, with her first babe, ages from ten to fifteen years, and with each succeeding child keeps getting older in appearance.

One operation, which I heard of, is performed in a peculiar way. If a mother should die before giving birth to her babe, a Caesarian section is performed, and the child taken away to be secretly buried. The future happiness of the husband is insured by this method, for, had this custom been omitted, the mother would again marry the same man in the next world, and she would have died by the same means. Great care must be exercised to make the burial spot absolutely secret, for fortune-tellers and wizards are always on the hunt for the remains, which they dry and use in their black arts. Sailors who obtain the dried caul imagine it gives immunity from drowning. The still-born child is wrapped in burial clothes, in which some one of the family places two or three pieces of iron, which seems to appeal to their superstition. And at burial, one of the family chants over the little corpse a bit of an old dirge, which implores the child not to return to its mother's womb until the iron becomes soft as down.

Returning to the mother, who has now ended her seven days of torture, we find her slowly recovering. The family now gathers for the purpose of naming the child. The astrologer or some dignitary known to the family, is called in and, with all the friends of the family, they sit down in a circle, placing mother and babe in the middle. All are grave, and either smoking their long cheroots or chewing the familiar betel nut. One of the old fellows jumps up bright and chipper, and begins to suggest a name which he thinks will be quite proper. After a short interval of discussion, the name is accepted. The astrologer had arranged all this with the mother and father beforehand, and had foretold of luck and

long life. A lucky name is always chosen, a common belief among the natives being that if one is born on Monday the person is to be jealous; Tuesday, he will be honest; Wednesday is a sure day to become quick-tempered; Thursday, the character will be mild; Friday makes a talkative child; Saturday, shows quarrelsomeness; Sunday will bring forth parsimony.

The midwife now comes forward to take her fee, but not before she washes the child's head. A few presents are bestowed and she is dismissed.

The ceremonies in which mother and child figure are now over, and the guests proceed with the feast, which is always an important event on the christening program. Should the family be poor, the guests bring most of the food. But in a rich family the repast is elaborate. The celebration is concluded the following morning after much drinking, eating and dancing.

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## Oral Infection

BY W. H. WHITSLAR, M. D., D.D.S. CLEVELAND

The mouth is the natural orifice through which food and water and much air is taken into the body. Therefore, the mouth becomes the first resting-place of many organisms which are not carried beyond the limits of the mouth by force. In this cavity are found suitable media for the development of most organisms. Some do not seem to proliferate to any great extent, or at least there has not been found the method of developing them outside of the mouth artificially, so that their growth is not well known. Over 100 kinds of organisms have been found in the mouth, and from 20 to 30 are constant.

The celebrated Dutch scientist, Leeuwenhoek, in 1675 was the first to discover microscopically, small organisms in the mouth. He found no less than five different organisms in a certain white matter between the teeth. A number of observers followed this discovery, but Ficinus, a physician of Dresden, in 1847 made considerable advance in the study of organisms of the mouths of men and domestic animals.

Passing over the interesting history relative to the discovery of the various germs causing diseases, we come to 1883, when Professor W. D. Miller, an American dentist residing in Berlin, and a Professor in the University, solved the problem of the ages relative to the true nature of dental caries, one of the most prevalent of all diseases. Professor Miller demonstrated that



dental caries is due to a number of factors, but the principal and basal one is the growth of oral bacteria. These organisms cause a fermentation of the carbohydrates and albuminous foods, forming lactic acid principally, and this causes a disintegration of the inorganic portions of the tooth structure. As this disintegration ensues the animal portion serves to aid in the fermentative processes, and the dentinal tubuli of the teeth allow the organisms passage toward the dental pulp, which in turn becomes infected.

Dental caries is not a modern disease. Civilized and savage races are all subject to it. The ancients had no immunity, for Egyptian mummies 4,000 years old exhibit the same decay that is now observed. Dental caries is as old as the human race, and probably causes more pain to the human family than any other disease. In this connection we have only to mention paralysis, neuralgias, glaucoma, amaurosis, otitis, convulsions, thrombosis of the sinuses of the brain, eczema of the face, and epileptic attacks as secondary affections caused by reflex action from decayed teeth. The bacteria are the original excitants of the disease. Other diseases mentioned later will augment the list considerably of those diseases which are of germ origin, but have to do with the teeth and their surrounding tissues.

The mouth is especially adapted to the growth of microorganisms. In it we find the proper temperature, which is evenly maintained, an excellent media, required moisture, and the proper soil for the proliferation of bacteria is always provided.

The organic and inorganic substances found in the mouth, which may serve as nutriment, as well as media for the growth of microorganisms, are as follows: normal saliva, buccal mucus, dead epithelium, dental tissue softened by acids, exposed dental pulps, exudations of the gums, conditioned by the irritation of salivary calculus, etc., and the accumulations of particles of food. (Miller.)

We will mention a few facts relative to the significance of saliva. Pure saliva contains 0.15 percent of organic matter and undergoes putrefaction slowly. Only when mixed with organic matter does it show marked signs of putrefaction, organic matter being necessary for the saliva to become a good culture medium. Saliva has a physiologic process to perform and, according to Dr Michaels, of Paris, it represents more accurately the composition of the blood than any other fluid from the body, and is the best medium for arriving at a conception of the status of nutrition, the urine being regarded by Michaels as of secondary importance.

Nutrition is the greatest factor in preparing all tissues to resist disease invasion, and the nutritional changes are indicated by the saliva.

The saliva has often been noted for its poisonous qualities, due, of course, to the presence of organisms. The poisonous effects of saliva were noted by the earliest writers. Galen saw a scorpion killed by saliva without the use of magic. Aristotle observed a girl whose bite was as poisonous as the most fatal snake-bite. Various observers from time to time have noted the poisonous effects of saliva. Ranaud and Lannelongue were probably the first who referred to the poisonous effects of saliva, due to the presence of microorganisms. Pasteur reported at the same time on experiments, but Colin was the first to obtain an insight into the true nature of the affection following the injection of human saliva. It has been established that a group of microorganisms belonging to the coccus form, occurs almost invariably in the buccal juices which, when brought into the circulatory system, may provoke the most dangerous diseases.

The buccal mucus of the mouth is identical with the mucus secreted by the submaxillary and sublingual glands. It is insoluble in alcohol, ether, chloroform, and dilute acids, but is soluble in dilute alkalis. It does not coagulate when boiled, belongs to the albuminoids and serves as nutriment for bacteria. The saliva and mucus, therefore, supply moisture and materials for the media in which organisms develop.

As for food, the oral bacteria derive it mostly from the particles of food collecting upon and between the teeth, or in cavities of decay. The chief foods are the carbohydrates mixed with organic matters of the tooth or its pulp, and the exudations of the gums.

There are pathogenic and nonpathogenic bacteria in the mouth. "Of pathogenic bacteria, the micrococcus of the sputum septicemia is the most important. This organism is an oval coccus, single or in pairs, as diplococci, or in short chains. They are surrounded by gelatinous capsules visible under 300 to 400 diameters. The oral cavity serves as a gathering point for this microbe, which is sometimes carried into the lungs, and at last some weak point gives a foot-hold for the proliferation of the organism, and lobar pneumonia results. It is a fact," says Professor Miller, "that capsule cocci have been repeatedly found in connection with a large number of different processes, as follows: emphysema of pneumonia, in pleuritis, endometritis, diphtheria,

peritonitis, in cerebral meningitis, otitis media, abscesses of the mastoid process, retropharyngeal abscesses, ozena, rhinitis, coryza and catarrh. Some even contend that the capsule coccus may be the cause of rheumatic diseases.

"It is probable that the spuum septicemia represents a group of nearly allied species, so that we could account for the variety of diseases this form of organism seems to be connected with."

The pyogenic bacteria, *i. e.*, staphylococcus pyogenesis aureus and albus, and streptococcus pyogenesis frequently gain access to the mouth. Professor G. V. Black, of Chicago, says they are generally present in the mouth and endanger every wound. Dr. J. Leon Williams, of London, another noted authority, supports the views of Professor Black. Besides these organisms, Pane's pneumococcus is found in the saliva of healthy persons, as well as of those having pneumonia. Blondi found in a person suffering with puerperal septicemia the coccus salivarius septicus. The spirillum sputigenum is found in the mouths of all human beings. The germs of syphilis, tuberculosis, diphtheria, hydrophobia, thrush, ray-fungus, etc., exciters of grave diseases, are able to maintain themselves for a considerable length of time in the oral cavity.

Microorganisms enter and infect the mouth in various ways, *i. e.*, mechanical injuries to the mucus membrane; through gangrenous dental pulp resulting in abscess and secondary septicemia or pyemia; resorption of ptomaines; pulmonary diseases caused by inspiration of particles of salivary calculus containing bacteria; excessive fermentative processes of the digestive tract caused by the swallowing of microbes and their products; infections of the oral and pharyngeal cavities, where tissues have low powers of resistance, caused by disease and injuries. (Miller.) Syphilis, typhus, diphtheria and diabetes would lessen the powers of the normal mucous membrane.

It seems superfluous to say that germs may be carried to the mouth with clinical thermometers and any instrument for the performance of operations, unless sterilized.

Examples are numerous of serious results following extracting of teeth and lancing of gums. Tetanus, septicemia, pyemia, meningitis, pneumonia, syphilis, etc., follow in the wake of careless operators.

Inflammation of the dental pulp, as a rule, is due to its exposure and the direct influences of microorganisms. Death of the pulp leads to pericementitis and this may result in alveolar abscess.



Alveolar abscesses are infectious, and may lead to osteomyelitis, otitis, necrosis, metastatic abscesses, gangrene of lungs, pleuritis, pericarditis, septicemia, pyemia, meningitis, tetanus, fistula of the breast, indigestion, sterility, abscess of the hip, blindness, etc.

Time will not permit me to go into detail concerning all the infections of and from the mouth, which are most interesting, including syphilis, tuberculosis, periostitis and necrosis of the jaws, stomatitis, etc.

I desire, however, to call your attention to a very common condition met in the mouth, which is a great factor in the production of diseases in general. We know that the mucus membrane of the mouth is very susceptible to the action of certain germs of infection, as syphilis and tuberculosis, and that their destructive influences are great. It is, therefore, easy to perceive how the various organisms and their fermentative products produce upon the normal tissues conditions that lower their vitality and functions. Often the sense of taste is obliterated, and in all we have a mouth that compares with a "spoiled" stomach. The last-named often arises from the conditions in the mouth.

In 1756 Pfaff recognized the importance of putrefactive processes in the mouth. He says: "As a result of tartar accumulating about the teeth they become loose, and a very disagreeable odor is emitted from the mouth, which is often attributed to the innocent stomach." We often meet people whose teeth are covered with a thick deposit of tartar, mucus, food and organisms; the gums bleed easily and are inflamed and suppurating. Large quantities of pus are constantly being exuded into the mouth, only to be swallowed and become absorbed into the system. This condition of the mouth is frequently met with, and next to caries causes the loss of more teeth and also promotes diseases of the digestive tract and the nervous system beyond conception.

The disease is in reality a chronic inflammation of the peridental membrane and periosteum, necrosis of the bone, and more or less inflammation of the gingivae. It has a multitude of names, owing to the differences of opinion of the observers, but it is commonly called Rigg's disease, or "pyorrhea alveolaris." There are so many features of the disease that no one name seems to fit all phases.

There are two general classes, one in which there is loosening of the teeth and attachments of the peridental membrane, and a uniform wasting of the alveolar process, with a gradual evulsion of the teeth, without any deposit being found upon them. In the

other phase there are pockets, then seruminal deposits are found upon the roots. These deposits are smooth or granular, in sheets or islands, and they may or may not cover the whole side of the root as deep as the pocket extends. With the destruction of the peridental membrane the alveolar process is destroyed. In all these conditions microorganisms are found which at first are anaerobic. Pus is elaborated extensively in the great majority of cases, and this is without question one of the greatest sources of infection known to the body. It is often entirely overlooked in the treatment of disorders of the stomach and of the nervous system. It is in this condition of the mouth that the teeth become loose, and mastication is seriously interfered with. Hence, indigestion plus pus infection equals mal-nutrition and autointoxication, followed by anemia and nervous prostration. Cases could be cited wherein these indications are daily observed and health restored without the use of internal remedies. The disease is confined to the adult and rarely found in children.

As to the etiology of "pyorrhea alveolaris," opinions vary. The predisposing causes are hereditary influences, irregular teeth, (*i. e.*, mal-occlusion,) debilitating diseases, local catarrhal conditions, mechanical injuries, and the presence of salivary and seruminal calculus. Some believe that bacteria cause the disease, and there is no question but that they are important factors in the disease. We can say that the majority of cases are induced by accumulations of salivary calculus and other substances, together with filth, and lack of care of the teeth and mouth.

The gouty diathesis is considered by many as the cause of the disease. Seruminal calculus found upon the roots of the teeth is made up mostly of the urates of lime, hence one would naturally infer that a gouty diathesis is the cause. Catarrh of the mucus membrane is another cause, contributory at least.

Eugene Talbot, of Chicago, has written exhaustively upon the subject. His book entitled "Interstitial Pericementitis," is a very complete work. He considers autointoxication as one of the greatest etiologic factors of the disease. Others consider syphilis and tuberculosis as primal factors. We have noticed it frequently occurring during and following pregnancy.

The metallic poisons taken into the system are promoters of the disease, and sometimes the disease is taken for metallic poisoning.

While great stress should be laid upon the consequences of "pyorrhea alveolaris" alone, it must be conceded that sometimes

toxic effects are the greatest when local effects are least. Pus organisms find lodgement in many hidden places in the mouth, under plates, bridges and crowns, and although the mucous membrane is resisting to disease, still violent tonsillitis, stomatitis, and pharyngitis are often due to the infections from these sources. Indeed, these nests of infection are often overlooked in the treatment of these diseases. Again, the stomach, during its inactivity, when the gastric juice is not in demand, becomes weakened by the absorption of pus and the organisms that have come from the mouth. This results in nausea, distressing pain, depression and weakness, distaste for foods, and a sallow skin. This condition of the stomach Wm. Hunter calls "Septic Gastritis," and cites cases of such infection traceable to the mouth. These cases yield to local treatment.

Dr Hunter in his observations has found that in frequent cases of extreme oral sepsis that nervous effects such as numbness, tingling in the hands and feet, loss of knee-jerk, marked wasting of certain muscles, and local palsies were immediately improved by the removal of oral infection. He designated this infection as "toxic neuritis." A well-known neurologist informs me that he never treats neurasthenia without having the mouth and teeth put into a healthy condition.

The treatment of all these conditions is first to remove all the foreign deposits upon the teeth, and extract those teeth and roots that cannot be made healthy and serviceable. The patient should be advised to remove artificial dentures during the hours of sleep, and pay extraordinary care to the daily cleansing of them with brush and pumice powder. For the natural teeth, powdered pumice stone may be used as a cleansing powder once or twice a month. At all other times a powder made up mostly of powdered prepared chalk is sufficient. Tooth pastes are not desirable. The market is full of washes for the mouth. In suppurating conditions of the gums, first clear away all deposits upon the roots of the teeth and remove the necrosed processes of bone. This operation is performed with delicate instruments, and often requires many sittings and hours of labor and patience. The detritus is washed out with dioxogen. Then various solutions of iodine, lactic acid, trichloroacetic acid, zinc, argyrol, nitrate of silver, sulphuric acid, aromatic sulphuric acid, etc., as are best adapted, are injected into pockets from one to three times per week, as the case demands. Massage of the gums is of much importance, and also the best care of the teeth three or four times



a day is required. Many cases can be cured, but some of the dental profession think "pyorrhea" is incurable. Sometimes loose teeth have to be held in place with splints. Those teeth which are unsupported with sufficient alveolar processes become permanent irritants, and should be extracted.

Systematic treatment pertaining to the conditions of the body should be given, remembering that the bowels and kidneys are the safety valves through which most of the poisons of the body are eliminated.

Members of the Academy, the time limit for such a paper is too short.

Upon the subject of "pyorrhea alveolaris," so called, much could be presented. I have been unable to touch upon the surgical infective diseases in this paper. Permit me to suggest, however, that it is quite as important to disinfect the oral cavity previous to an abdominal operation involving the alimentary canal as it is to disinfect the abdominal wall itself.

In conclusion, please remember that the oral cavity is the open door to the body, and that oral infection is a barrier to human health and happiness.

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## \*The Alleviation of the Discomforts following Anesthesia

BY FLORENCE G. ASHTON, CLASS 1906, The Lakeside Hospital School for Nurses.

The after-treatment of every surgical operation consists in rest. It is most essential to prevent the ligatures giving way, and to lessen the likelihood of irritation of the stomach, and vomiting. The patient frequently feels a great deal of distress following the administration of ether; some of which can be relieved, so aiding to give the one needful thing—perfect rest.

Perhaps the most valuable of these relieving measures are those taken before the operation as, for instance, the withholding of solid food the day previous, thus lessening the irritation of the stomach; the drinking of a quantity of water, thus lessening the likelihood of any irritation of the bladder; catharsis and enemata given to evacuate the bowels. The loss of vitality varies according to the strength of the patient, the loss of blood, and the length of the operation. To enable the body to regain its tone, the room, ventilation, quiet, bed, clothing, surroundings, position, etc., all must be taken into consideration. The room, if possible, near to the

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\*Awarded the prize of \$75.00 offered by the School.

bathroom, and containing a fire place, should be well ventilated, the temperature 68° or 70° F. All unnecessary furniture should be removed. The light, shaded from the patient's eyes, should be subdued, but not so much excluded that the patient's features and color cannot easily be watched. Quiet maintained, and only such visitors allowed in as the doctor permits, knowing that they realize that any excitement uses up energy, which the patient can ill afford to lose. The patient should lie between warmed blankets, the head should be low, and protected by a pillow from striking the top of the bed. The gown should be loose and warm, opening in the back. As there is frequently profuse sweating, other warmed gowns should be in readiness, along with a pneumonia jacket, towels, low pus basins, a mouth gag and tongue forceps for emergencies.

The position of the patient in bed must be one that is unconstrained. If a limb has been operated on it should be elevated on a pillow to lessen the danger of hemorrhage, the weight of the clothes removed by the use of a cradle. In abdominal cases, a roll under the knees will relax the abdominal muscles, and remove the strain the patient makes to hold up her knees. Pillows of all sizes and kinds are invaluable to give the perfect rest desired. One or two small ones may be placed in the hollow of the back, larger ones should be used to support the back when the patient is turned on her side; others may serve to relieve aching shoulders, buttocks, etc. A rubber ring is sometimes a great comfort.

Some patients, while semi-conscious, become very violent. Restraint should be only exercised while the effects of the ether are passing off, and then only to the extent of preventing them falling from the bed, or tossing about. A blanket may be pinned across if necessary, a gag inserted to prevent biting the tongue, and the knees bandaged to prevent injury. In gynecologic cases hypodermic injections of morphin, with or without atropin, are frequently given.

A dazed condition is common after ether; the patient may feel a lost, sinking sensation, and may be relieved by moistening the lips, stroking or bathing the forehead with alcohol solution. I have noticed that speaking to a patient by name or smoothing back her hair, has sometimes helped the patient to realize her surroundings, and to convey the comforting thought to her dulled senses that she is being watched and cared for. Other cases may continue for some time in a quiet sleep, and then exhibit more or less marked signs of cerebral excitement.

The vomiting following ether is the most dreaded after-effect, some fortunate few escape entirely. The majority suffer from vomiting from six to 24 hours, some few for several days, even a week. The head should be lowered and kept as still as possible. The least strained position for the patient, while vomiting, is lying on the side with the body slightly flexed, or on the back with the knees drawn up, resting on a pillow. While unconscious, vomited matter may be accumulated in the pharynx, and be inhaled or obstruct the breathing. Or it may enter the larynx or trachea with the same result. These chances are lessened by the withholding of solid food for some hours before the operation. When this accident occurs, the jaws should be opened, the head turned to one side, and the shoulder raised, thus aiding the removal of the obstruction. If these measures are ineffectual, the doctor should know at once, as tracheotomy might be necessary. The patient should not be left alone until she has regained the control of the muscles of her throat, so that vomitus could not slip back. She should be encouraged to "spit it out," and then have her mouth washed out. Hypodermic injections of atropin before the operation help to lessen the amount of mucus secreted.

A variable degree of irritability of the whole digestive tract is the common result of anesthesia—especially in cases of abdominal section. Vomiting and nausea are rather increased than diminished by drugs, food and drink. They should be withheld until the toxemia of the ether has passed. The treatment is rest for the stomach, with the exception, in some cases, of giving slowly a teacupful of hot water. This may be promptly thrown up, but it will wash out the stomach, and may give a little relief. A regular lavage may be necessary to wash out an accumulation of mucus in the stomach. Various applications to the stomach, as ice, or a mustard plaster, or spraying the stomach with ethyl chlorid, have given relief. The inhalation of acetic acid or vinegar is also good. In more prolonged cases many things have been tried with varied success; a little black coffee, brandy, aromatic spirits of ammonia, ipecac, hyoscin, chloroform or sugar, tincture of capsicum. Cocain grains  $\frac{1}{4}$  every two hours for five doses, has been successful in very severe cases. Tincture of iodine in a little water at half hour intervals. Morphin will sometimes relieve and sometimes aggravate the trouble.

Hysterical vomiting, following in about one percent of abdominal sections, may subside by itself. Morphia given in large



doses allays irritation and induces sleep. Some slight attention to the wound has often stopped the prolonged vomiting.

Thirst and dryness of the mouth, which is often a troublesome feature, may be relieved to some extent by frequent bathing of the face and hands with alcohol and tepid water; by washing of the mouth with cool water, boracic or listerin solutions, not so cold as to cause the teeth to ache. A gargle of hot water when they can take it. Small pieces of gauze laid on ice, then placed over the lips. Pellets of ice may be given the patient when the vomiting has ceased. If the thirst is extreme, normal saline is given sub-cutaneously and by rectum. When water is started by mouth it is given in small increasing doses, very hot, to settle the stomach.

In some cases rectal feeding may be necessary for a time, giving the stomach absolute rest. After water has been taken by mouth, albumen water may be started; it is given at first, quite cold, with little or no flavoring (and no froth); freshly made tea, toast water, milk and lime water and broth are given.

Pain, that hinders the needful rest, may be due to many and various causes. The tightness of a dressing may cause impaired circulation, the edge of a plaster cast may be pressing into the flesh, causing a great deal of pain. Bed-sores may be prevented by keeping the patient and bedding clean and dry, the linen smooth, and the pressure removed from one part to another. Aching arms, legs, and back may be rubbed with alcohol or chloroform liniment, and given a gentle massage. An aching head may be relieved by ice-cold compresses or the application of an ice-bag. The eyes sometimes burn and ache, and may be protected by a shade of dark glasses. Cold compresses may be applied to the eyes, or they may be irrigated with tepid boracic and saline solution. The lips may have been burned by the ether or chafed by the compresses used to relieve the thirst. Cold cream or cocoa butter will quickly give relief. The tongue is sometimes bruised and swollen from the use of the mouth gag. Boric solution mouth douches quickly relieve the inflammation; these may be followed by a drop or two of albolene on the tongue.

Gas in the bowels is a very distressing and quite frequent trouble, as the muscular walls of the intestines, sharing in the patient's weakness, are relaxed; peristalsis is diminished. This condition can be relieved by the passing of the rectal tube, by turpentine stupes to the abdomen, by turpentine enemata, by carminatives, and by catharsis.

Hiccoughs occasionally occur during the first few hours after an operation. In mild cases they respond to "holding the breath," the administration of hot water, ice, heroin, carminatives, or the application of mustard paste to the epigastrium. In more severe cases tongue traction is tried. Morphin or atropin are given hypodermically with good results.

Sleeplessness is not uncommon. It may be helped by sponging the palms of the hands, the arms and legs. A hot drink, a rearrangement of the pillows, fresh air, fresh linen on the bed, or the luxury of an entire fresh bed, would often secure a good night's rest, without resorting to hypnotics.

The evacuation of the bowels is brought about by catharsis and enemata as soon as possible, according to the operation.

Ether frequently leaves some irritation in the urinary tract, due partly to the lessened secretion by the kidneys, and the concentration of the urine. When it occurs, hypodermoclysis and enemata will give some relief. After a certain period of time, according to the operation, if the patient is still unable to void, micturition may be brought about by a warm steaming bed pan. The sound of running water will often help. Hot water poured over the pubes, or hot compresses applied will often prove effectual. The injection of one-half a pint of warm water to the rectum, the administration of sweet spirits of nitre, drachm 1 every half hour or, if there is no objection to the patient sitting up—the assumption of that posture may have the desired effect, remembering that the presence of another person is often an inhibitory factor. These failing, catheterization must be performed.

The patient should be bathed daily, rubbed with alcohol and all folds of the skin powdered. The teeth and mouth washed, and the hair combed when possible. The atmosphere of the room kept bright and cheerful.

As some patients recover from the anesthetic they become very much depressed over the length of time required for convalescence, or over what they know or conjecture has been done in the operation. The nurse must keep her patient's mind at ease, using great tact in not allowing her to hear any disturbing news, and note her condition by unobtrusive observation instead of questionings.

Pneumonia and pleurisy occurring after operation, may follow as the result of chilling or exposure, or it may be due to the inhalation of the sputum.

The state of profound unconsciousness, with its characteristic complete relaxation of the muscular system, moist skin, loss of special senses, contracted pupils, slow, deep, respirations, conjunctiva, insensitive to the touch may alter suddenly. The respiration must be closely watched, as the heart may continue to beat after they have ceased. Artificial respiration must then be started immediately, and maintained with no cessation, until breathing is restored. First, however, the position of the tongue must be observed, if it has slipped back so causing the asphyxia, it may be pulled forward with the fingers or forceps, then by pushing the lower jaw forward, and upward, a recurrence of the mishap is prevented.

The nurse should keep the symptoms of adverse changes in mind, so as to recognize them at an early stage. She should not make the mistake of trying to relieve a trifling ailment, when it is only a symptom of a serious change impending, which will require all her efforts to ward off. She must also remember that the patient may often hear, understand, and afterwards remember what is being said, and yet be unable to make any motion to show her consciousness.

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### \*The Alleviation of the Discomforts following Anesthesia

BY HELEN I. MacROBERTS. CLASS 1906, The Lakeside Hospital School for Nurses.

After riding sixty miles by rail and seven miles over rough country roads I arrived at a small tumble down house which sheltered my patient. The surgeon met me at the door and said in few words that the case was a gangrenous appendix with free pus, and after giving orders as to her care hastened away to the station.

The bedroom had answered as well for an operating room and was in an awful condition. The patient had not yet been transferred from the ironing board, used as an operating table, to the bed. So, taking the oil cloth from the kitchen table, I protected the mattress across the centre and head, and had the patient placed between warm blankets. Following out the surgeon's orders I turned her well over on the right side to allow free drainage and propped her up with a pillow.

On returning from an adjoining closet where I threw the soiled linen, I found her blue in the face. Catching up a pair of scissors from the table and covering them with a towel, I pried

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\*This paper was given honorable mention.



the locked teeth apart, at the same time ordering the distracted husband to bring a couple of forks from the kitchen. With these I got hold of the tongue that had fallen back into the throat, and pulled it well forward allowing the patient to breathe easily and the cyanosis disappeared. With strips of muslin wound around one of these same forks I kept the mouth clear of mucus.

The patient's lower extremities were cold and clammy, and I hastened to the pantry for flat irons. There were only two, but there was a barrel of salt there and an idea struck me. Filling several pans with this salt I put them in the oven and while it heated found flour sacks which served nicely for making pads of this hot salt, and when applied to the patient, took the place of hot water bottles very well.

The patient's eyes were irritated from the ether used. As the husband opened the door of the next room, to get snow from the yard to be used as compresses to the eyes, I noticed a draught directly over the patient. So the next move was to put the bed at the opposite end of the room with the head toward the window. Then, as no boracic crystals were to be had, I bathed the eyes with a normal salt solution.

Again I noticed the patient was somewhat cyanotic and knowing that it was not due at this time to difficult breathing, I began to think of collapse, and its treatment. First we elevated the foot of the bed and covered the patient with blankets which we were obliged to take from the other bed in the house. Then began a search for stimulants. There was coffee in the house and a bottle of alcohol was produced. Making strong coffee and diluting the alcohol to about 50 per cent I gave a stimulating enema with a fountain syringe and a rectal tube I had brought with me.

By this time the patient was becoming conscious and commenced vomiting. When she vomited I pressed my hand lightly against the abdomen, thus relieving the pain to some extent while straining. I allowed her to rinse the mouth with cold water and also with a weak solution of listerine made from some brought in my suit case for personal use. Luckily there was glycerin in the house and I applied this to the lips and tongue to prevent them becoming parched.

The nausea persisted, and in the absence of acetic acid and a patented cone, I saturated a small towel with vinegar and held it to the patient's nose. But the nausea continued till the second day, when it seemed that nothing else would do but a good cleansing of the stomach. Having no stomach tube at hand, I dissolved a teaspoonful of baking soda in a glass of warm water and repeat-

ed the dose which caused sufficient vomiting to empty the stomach of a fluid resembling bile and mucus.

The extreme thirst caused by this long period of vomiting was not in the least relieved by rinsing the mouth with water and applying wet compresses to the lips, so the next morning, I decided to give a subcutaneous infusion of normal salt solution. I could manage this very well, for the surgeon in packing up his instruments so hastily the day before had left an aspirating needle behind, and attaching this to the tube of the fountain syringe I had a complete apparatus.

Another discomfort suffered by the patient was the tiresome position. Occasionally I allowed her to turn on her back and have a pillow under her knees to lessen the tension of the muscles of the abdominal wall. Putting a folded sheet under the back and a small pad under either shoulder also afforded relief. When on her side a small pillow between the knees was a comfort. Merely slipping my hands under the back produced change enough to rest her.

During the night when I opened the binder, which by the way, was made of towels, to rub her back, I discovered the wound was bleeding. Visions of hemorrhage arose before me and I became thoroughly alarmed, but determined to do the one thing left me to do. Tearing strips of old muslin I boiled them in a basin of water along with a couple of forks and a pair of scissors. With these forks I applied the muslin, packing it as tightly as possible over the bleeding point and put extra dressings over the wound and reapplied the binder as tight as I could pin it. The bleeding ceased and I knew it must have been only a superficial blood vessel, probably caused by the slipping of one of the ligatures when she was so restless.

When returning to consciousness she was very much dazed and was not able to locate herself nor to remember what had happened. I could with difficulty recall the events prior to her operation and was compelled to use all my powers of persuasion and even force to keep her quiet or even in bed.

After the lavage on the second day, all vomiting ceased and the patient was able to take hot water in small quantities gradually increasing to cold water in large quantities, which I urged her to do for fear the irritating effects of the ether on the kidneys might cause suppression of urine. Liquids were also taken the second and third days.

When the surgeon returned on the third day he pronounced the patient's condition good and when I left her at the end of three weeks I felt that instead of my patient paying me for services rendered, I should have paid her for the experience I had had in caring for a post operative case.

## \*The Alleviation of the Discomforts following Anesthesia

BY AGNES PILLOW, CLASS 1906, The Lakeside Hospital School for Nurses.

In preparing for the care of a patient after an anesthetic the first thing to be considered is the room.

It should be well lighted and ventilated and at a temperature of 68° to 70° F.

The bed should be placed in a position so as it will be accessible from both sides and foot, and so the light does not shine in the patient's eyes. The bed should be warm, and hot water bottles left about the patient after the patient's return from the operating room.

The alleviation of discomforts of a patient after an abdominal operation performed under ether anesthesia may be:

- 1 Vomiting—in which case the patient should not have anything by mouth.
- 2 Nausea—often relieved by inhalation of vinegar from a cloth.
- 3 Dryness of the tongue and lips, and thirst—moist compress to lips. Allow patient to rinse mouth frequently.
- 4 Backache—(a) rub back, (b) small pillow to relieve pressure, (c) turn patient slightly on side and support by pillows.
- 5 Numbness of limbs—(a) massage, (b) elevate knees on pillows.
- 6 Pains—(1) Pains in head, (a) ice-cap, (b) massage.
  - (2) Pain in abdomen due to:
    - (a) Gas, which may be relieved by hot water bottle.
    - (b) Distended bladder—hot water bottle over bladder; hot perineal stupes; catheterization.
    - (c) Wound in abdominal wall—lighten binder.
    - (d) Operation upon viscera—heat.
    - (e) Pain in chest due to pleurisy or pneumonia—pneumonia jacket; ice-cap; room temperature 65°-68° F.
- 7 Irritation—(1) Skin—from discharges as bile, pus, urine, etc.,—cleanliness; ointments: lanolin, zinc oxid, boric.
  - (2) Irritation of nose and throat—keep air warm and moist; liniment as camphorated oil.
  - (3) Irritation of eye—dark room; ice compresses.
- 8 Sore mouth and tongue due to mouth gag or tongue forceps—mouth wash of listerine 1-8.
9. Sore lips (herpes)—vaseline or cold cream.
- 10 Nervousness—(1) In alcoholics, massage.
  - (2) Morphin fiends, massage.
  - (3) Neurasthenia, (a) massage, (b) sympathy, (c) scolding.
- 11 Faintness—(1) From loss of blood, (a) elevate foot of bed, (b) bandage legs and arms.
  - (2) From pain, (a) hot water bottle, (b) ice.
  - (3) From fright, (a) assurance, (b) cheerfulness, (c) sympathy.

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\*This paper was given honorable mention.



# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
THE CLEVELAND JOURNAL OF MEDICINE

MONTHLY

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## EDITORIAL

### Walter Reed and Yellow Fever

Dr Walter Reed's epoch-making discovery of the relationship of the mosquito to the spread of yellow fever, was given to the world, now, nearly six years ago. As so often happens, Dr Reed was not spared long enough to appreciate the immensity of his gift to mankind. It is a strange but admitted truth that often, in our interest in the establishment of a scientific fact itself, we forget the man to whom we are indebted for its discovery. Could Dr Reed's life have been spared long enough to have seen the methods planned and outlined by himself, carried out upon the exhaustive scale which was followed last fall in New Orleans, how much more would he have appreciated the greatness of his service to the world at large.

We are indebted to Dr Howard A. Kelly, of Baltimore, for again calling our attention to the life and work of Walter Reed. In this singularly charming and interesting volume "Walter Reed and Yellow Fever," (McClure, Phillips & Co.), Dr Kelly has given us a glimpse of Dr Reed's early life and an account of his scientific career, which, when taken up cannot be laid aside until it has been read from cover to cover.

May we here remind our readers that of the memorial fund

raised under the auspices of the Walter Reed Memorial Association, \$8,000 is still wanting to complete the \$25,000 fixed by the Association as the sum desired. It is the purpose of the Walter Reed Memorial Association that the interest from this fund should be paid during their life time to the wife and daughter of Dr Reed, while at their decease the principal is to be used either in the erection of a monument to Dr Reed's memory, or in the promotion of research in his especial field of work. We earnestly hope that the balance of this amount may be quickly forthcoming.

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### Ehrlich's Recent Work Upon Cancer Immunization

The results of Ehrlich's recent work upon the immunization of mice against malignant growths, commands at the present time, the interest of all scientific workers.

Ehrlich's original paper appeared in the *Zeitschr f. Artzl. Fortbildung* 3, 1906, No. 7, and marks an epoch in the problem of the treatment of malignant growths.

Ehrlich has established beyond dispute a method of immunizing the animals of the laboratory against malignant growths. If, now, this method can be applied to human beings and it is certainly within reason to assume that this end will be ultimately possible, then indeed may we take heart for the future in the matter of treating malignant diseases.

Adami, writing in the *Montreal Medical Journal* for June, 1906, of this recent work of Ehrlich's, says, "Thus we are able to chronicle the advance of which all must hope heralds eventual victory", and in conclusion says, "The all important point is that active immunity against cancer is shown, not simply to be possible, but to be gained with precision by a specific method of procedure and that against cancer of maximum virulence. The application of these results in human medicine can only be a matter of time: we see the dawn."

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### The State of Chicago's Health

In the June number of the *Journal*, we published at length, an abstract from the Biennial Health Report of the City of Chicago, a report which presented graphically the condition of Chicago's health for years past and demonstrated the enviable fact that Chicago was the most healthy city, in proportion to the population, in the United States. In view of the recent public

agitation as to conditions at the Union Stock Yards of that City, and of the fact that the Commissioner of Health has been misrepresented in certain of the public points, he has, in the Bulletin of the Department of Health, for the week ending June 2, made a brief statement which is not without interest at this time.

Whatever may be the real truth of the situation at the Union Stock Yards, we are confident that the Commissioner of Health of the City of Chicago, has done all that was within his power to eliminate the danger from diseased meats and condemnation of unhealthy cattle for the protection of the denizens of Chicago. Any other imputation, implied or direct, is in our judgment, a gross injustice. The records of Chicago's health are in themselves sufficient proof of the efficiency of the Department of Health.

It is interesting to note that on March 21, 1906, the United States Government sent to Chicago, a number of Pathologists from the Bureau of Animal Industry, who, together with the City Pathologists, revised the rules and regulations which are now the standard for both Government and City Inspectors.

It is further interesting to note that during the month just ended, a total of 697,577 pounds of food stuffs were condemned and destroyed by the Department Food Inspectors, of which amount 481,795 pounds was condemned and destroyed at the Union Stock Yards. These figures are capable, perhaps, of two interpretations and certainly speak for themselves.

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### The Other Side

The April number of the St. Louis Medical and Surgical Journal contains an editorial signed by the editor, A. H. Ohman-Dumesnil, dealing with the evidence upon which one of our well known lay weeklies has recently attacked the widespread and indiscriminate use of headache remedies. The Proprietary Association of America has investigated a large number of specific instances, cited as incriminating such headache powders and the editorial gives their version of the cases in parallel columns with the facts as presented to the public by the newspapers.

That there is undoubtedly a very wide and indiscriminate use of potent drugs by the laity cannot be denied. It is to be regretted that the great American public should be so addicted to drug taking and self-prescribing. This is the evil which the lay journal is rightly attempting to correct, but it is unfortunate that they did



not make their case more convincing by first attempting to corroborate the evidence presented in the newspapers.

The value of the coal-tar products is proven beyond question but they are undoubtedly dangerous if indiscriminately used by the laity and ample evidence of this can be found authenticated in reports in reputable medical journals.

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### Three Prize Essays

We take great pleasure in calling attention to the three essays, appearing elsewhere in this number of the Journal, written by members of the senior class of the Lakeside Hospital Training School for Nurses, in competition for the prize awarded by the Trustees of the Hospital. These essays are published as originally written and should prove helpful and suggestive, especially to those who are forced to work without every modern resource at their elbow. The prize essay written by Miss Ashton covers in an unusually intelligent and careful way the all-important field included by the title of these essays. The essays appear in the order of merit as decided upon by the jury of award.

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## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

**Arteriosclerosis:** Sir James Barr, in *Merck's Archives* for May, states concerning the use of drugs in arteriosclerosis, that there are two classes of drugs which he seldom prescribes, digestive agents and hypnotics. If a man cannot eat or sleep, there is something wrong with him, he requires to be treated, not palliated. In this disease the man eats too much, and when his digestion fails, he can readily subsist on some hot water until his appetite returns. In these cases insomnia depends on high blood-pressure, arising from whatever cause, and it is much better to remove the cause than treat symptoms. The thyroid preparations are extremely useful in arteriosclerosis. George Oliver showed that thyroid dilated the arteries and Barr found that it increased tissue metabolism. Of course, it must not be pushed to the extent of producing thyroidism, as then the excited heart becomes exhausted and dilated in its futile efforts to maintain tension in unfilled arteries. Iodin is often more valuable than the thyroid, as its metabolic effects are attained by its stimulating action on the thyroid gland. He has seen two cases of exophthalmic goiter produced by the rather excessive use of iodine, both recovering on the stoppage of the drug. As a rule he prefers for medicinal use the tincture of iodine, and the syrup of iodine and tannic acid, to the more stable iodids. Adrenalin raises arterial tension, and is as a rule injurious in arteriosclerosis, but when combined with thyroid or iodine it occasionally does good by maintaining arterial tone and

stimulating the heart. Citrates have a decalcifying effect on the blood, at first lessening coagulability, but after prolonged use this again increases, Wright believing it to be due to the citrates dissolving the lime salts out of the tissues. The benzoates have long been favorites with Barr, especially where the kidneys are involved. He has frequently seen uremic convulsions cease under their free administration. He believes they act as eliminants and like the salicylates have a cholagogue action. The sulphates and sulphites of sodium and magnesium, and numerous purgative mineral waters have a good effect in clearing out the intestinal tract and in lowering blood-pressure. The chlorids are presser agents, and consequently their use should be limited. Calcium chlorid should be avoided unless there be some indication for its use, such as a severe hemorrhage or cardiac failure. Sodium chlorid should only be taken by gouty individuals in limited quantities. George Oliver has added some valuable agents to our armamentarium for lowering blood-pressure, such as the hippurates of ammonium and sodium, lichenin, leucin, and Witte's peptone. The nitrites are exceedingly valuable for emergencies, but their efforts are too evanescent to render them desirable for constant use.

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### Cystitis:

In *Medicine* for May, A. W. Myers, asserts that the medical treatment of cystitis is an unsatisfactory chapter in therapeutics. The application of remedial agents to the bladder by injection is considered the best method, if the cystitis is due to infection by a specific organism. He reports a case complicating gonorrhea, or rather following it, with an acute exacerbation of a chronic prostatitis. Hexamethylenetetramin in doses of five grains four times a day was given internally and the patient was put on a strict diet and large quantities of milk and water. A solution of acetozone consisting of 15 grains to a quart of water, was made up and the bladder was carefully irrigated with this solution after thoroughly cleansing the urethra. The solution was instilled into the prostatic urethra, and both the solution in the bladder and in the urethra was allowed to remain for 10 minutes. Burning was complained of in the prostatic urethra but this soon subsided. This local treatment was repeated twice, and convalescence was uneventful.

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### Mercurials:

Robert N. Willson, in the *Journal A. M. A.*, for May 19, reports a case in which 84 successive grains of calomel were given within 14 days as the result of a misinterpretation of an order for a single dose. The case was one of pericarditis. Extreme stomatitis developed and the patient died from uremia. So many cases of mercurial nephritis have been recorded that mercury should be recognized as an agent possessing a peculiarly irritative and destructive action on the renal tissues. In cases reported, death occurred in the convalescence of a simple though severe pericarditis. Two important lessons were learned from this undoubtedly avoidable waste of life; first, that the routine administration of mercurial laxatives and purges, prior to the receipt of a careful urinalysis, may occasionally result in fatality, even though the mildest mercurial salt be employed; second, that an existing

nephritis should contraindicate any but the most careful use of the drug, not excepting those cases in which it is possible to trace the renal disability to a syphilitic infection. With regard to the influence of mercurial salts on the kidneys of syphilitic subjects, a word of caution may be in order. The general tendency at the present time is toward the belief that a nephritis occurring in a syphilitic, not definitely known to have had renal disability before the specific infection, should be looked on as a syphilitic process in the kidney, and treated with mercury. This belief Willson suspects is not always founded on fact, and treatment based on the theory may defeat the aim of the physician, creating a more serious condition than that already present. He has recently had under treatment two cases of secondary syphilis, and in both instances, repeated analyses have been made since first using mercury, and in both the urinary picture remains normal until a certain dosage has been sustained for a brief time. Attention has been called to the danger in the indiscriminate use of mercury even in syphilis, and Willson considers it an abuse of the drug to employ it prior to a report on the urinary findings, or to employ it in any case in which the integrity of the kidneys is questioned. Frequent examinations of both patient and urine should be made when mercurials are used.

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### Low Tension :

Louis Fangeres Bishop, in the *New York Medical Journal* for May 12, believes that the management of constitutional low arterial tension is directly the opposite to the treatment of low tension that is due to the ordinary causes. These patients require active exercise; horseback riding seems to be the best possible form. Many of them find by experience that cold bathing does not agree with them, but that a very hot bath of short duration acts as a very powerful stimulant. While the ordinary symptoms of circulatory deficiency are absent, still there is sometimes so great a lack of peripheral circulation that cold feet and hands are a source of annoyance. Other patients with this condition suffer from occasional fainting attacks, and are generally inconvenienced by the slow response of the demand for an extra blood-supply in any particular region of the body. The condition is one of long duration, often apparently congenital, and frequently lasting through life. Some gradually acquire a normal tension, and in many the condition becomes less marked toward middle life. Treatment by drugs alone is not judicious, though at times they are most important.

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### Gastric Ulcer :

J. Henry Schroeder, in the *American Journal of Medical Sciences* for May, treats of the effect of drugs upon gastric hemorrhage. It is probable that in hemorrhage of this kind, morphin, absolute rest and physical means are in themselves sufficient to cause a cessation of the bleeding. Anything that has a tendency to raise the blood-pressure more than to sustain the patient is contraindicated. When the patient has lost so much blood that he is practically exsanguinated, recourse to one or the other of the many drugs suggested becomes natural. He believes that the slow administration of the isotonic salt solution is by far the simplest and most rational measure. It has an additional advantage in that it relieves the thirst of the patient. It seems to him,



illogical to attribute to adrenalin, when given internally, any value as a hemostatic. Applied to the bleeding surface it certainly possesses this property, when injected into the circulation its effects are about those which are observed after the administration of the salt solution, but it does not possess all the advantages of the latter. Stypticin acted well in the case reported, but against its seeming efficiency he urges, first, that the length of time elapsed after the hemorrhage was in itself sufficient to allow a cessation of the hemorrhage; second, that the stypticin is an opiate and that an increase of the morphin would have brought about the same result. The method of feeding patients under treatment for gastric ulcer is always of greatest importance. Food by mouth may be entirely prohibited necessitating rectal feeding. This meets the first requirement for the healing of an ulcer: rest of the stomach from excessive secretion, and muscular contraction. In feeding by mouth, milk has long been regarded as the most valuable food. As a matter of fact, milk ceases to have all the advantages of a fluid food when it reaches the stomach. He has found curds so firm that the stream of water during lavage could not disintegrate them and the patient vomited the masses after the lavage. To prevent the precipitation of curds, he highly recommends thorough and prolonged peptonization of the milk and his practice is to peptonize for one hour.

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### Thyroids:

H. D. Champlin, in the *American Journal of Clinical Medicine* for May, calls attention to several points of great importance to be observed in administering thyroid; the initial dose should be always small, one grain three times a day, and gradually increased; it is rarely necessary to go above two grains. The second point is the condition of the digestive tract, as thyroglobulin is precipitated by organic or inorganic acids. Alkalies should be administered at the same time, as otherwise the drug will be only partially absorbed. The third point is to watch the heart. An overdose may produce serious results, and great depression of spirits. Special care is required in old people with atheromatous arteries and fatty hearts. The drugs advantageously combined with thyroid are, arsenic, strychnia, digitalis, adonis vernalis, and opium.

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### Dechloridation:

In the *International Clinics* (Vol. I, Sixteenth Series), Ernest Barie calls attention to the dechloridation treatment in diseases of the heart. The treatment of asystole comprises a series of general means, but the various remedies used in asystole cannot be applied to each and every patient without distinction. As far as the pharmaceutic treatment is concerned, we still rely upon the group of drugs that have stood the test of experience, digitalis, strophanthus, caffeine, theobromin, etc., and that accomplish all that we can reasonably expect to accomplish in these cases which are hopeless from the outset, namely, to tide the patient over one or more attacks, and to stave off the final one for a certain amount of time. Of late we have acquired an adjuvant means to these different remedies, a means that comes more suitably under the heading of hygiene or diet. This is the suppression in the patient's food of all the sodium chlorid possible. This treatment ap-

plied in cases of nephritis has produced remarkable effects, in some instances in removing edema. Results of the same nature can be obtained from the dechloridation treatment of the edema of heart disease. By suppression of the salt in a patient's food, is meant the suppression of the salt that we add to it, for most of the articles of food we eat contain so small a quantity of salt that for practical purposes it can be overlooked. The dechloridation diet consists in bread, meat, eggs, vegetables, fruit, and milk. In meat, the chlorid is combined principally with potassium, and boiled meat contains no chlorid as it has become dissolved in the bouillon, and hence no bouillon should be given under this treatment. In dealing with persons for whom the salty taste to food is imperative, a means of giving a salty taste to meat without using salt is to sprinkle it with powdered sodium nitrate to the extent of two grams in 24 hours; the sodium nitrate should only be added at the moment the meat is to be eaten, since prolonged contact of this salt with meat might transform it into sodium nitrite, a toxic substance. As cow's milk is very poor in chlorids, about a liter of milk per diem may be allowed.

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**The Bile Acids:** In the *New York Medical Journal* for April 21, Alfred C. Croftan treats of the remedial uses of the bile acids, which may be employed with propriety, chiefly, in three conditions that are causally related to one another, namely, in intestinal putrefaction, in hepatic insufficiency, in gall-stone disease, and also, of course, in the various syndromes that we know to be consecutive to these states. In intestinal putrefaction, he considers the bile acids to be one of our most efficient intestinal antiseptics, and as self-intoxication from the bowel is one of the most prolific causes of many chronic cardiovascular, renal, nervous and metabolic disorders, the bile acids in this sense have a very wide field of usefulness. In liver insufficiency, an important vicious circle is always formed by giving bile acids by mouth, this vicious circle may be broken in different places, hence the great value of the bile acids in hepatic insufficiency. As to their use in gall-stone disease, neither the bile acids nor any other remedy that might be administered by the mouth can have the power of dissolving concretions in the gall-duct after they once have formed. In cases, however, that have a tendency to the deposit of gall-stones, he believes that bile acids may occasionally aid in preventing the further formation of concretions. In the great majority of cases the primary factor in the formation of gall-stones, is the invasion of the gall-bladder by microorganisms, often combined with some mechanical injury to the walls of the viscus, and we must assume with abnormal viscosity of the bile. The bile acids, therefore, are a useful remedy, and can, to some extent, prevent the entrance of intestinal germs into the gall-bladder and the hepatic duct, while at the same time promoting drainage of the bile channels with a fluid that is in itself antiseptic. Of the two bile acids, namely, glycocholic acid and taurocholic acid, the former is usually present in greater abundance in ox-gall than the latter, and is the cheaper preparation of the two. It is best to administer it in the form of the sodium salt as the free acid may be irritating to the stomach. The dose varies according to the exigencies of the case. He has been in the habit

of giving half grain doses at frequent intervals until the desired effect was produced. In other words the proper dose is enough. There is never any danger of giving too much, as in his experience the sodium glycocholate in no way deranges the stomach and if given in very large doses merely occasionally produces a little diarrhea which promptly carries off the surplus. Aside from the clinical results obtained, we have three chemical indices that enough is being given, namely, (1) the disappearance of sulphids from the stools, (2) The disappearance or great reduction of the aromatic sulphates (of which indican is the prototype) from the urine, (3) the appearance of the bile acids in the urine (normally). These are absent from the urine or present only in traces. The disappearance of sulphid from the feces is determined as follows: the patient is given with the sodium glycocholate, 20 or 30 grains of bismuth subnitrate: this salt as is well known is converted into black bismuth sulphid, coloring the stools black: enough of the bile acid salts have been given when the stools do not turn black after giving 20 or 30 grains of the bismuth.

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**Quinin in Pneumonia:** The *Therapeutic Gazette* for May, refers to the recently recommended employment of massive doses of quinin in croupous pneumonia, as by no means new and as not being a specific in this disease. It is evident that no one plan of treatment can be a specific in this malady, unless we are fortunate enough to discover some plan which finds its basis in serum therapy, which so far has failed completely in the hands of most practitioners. In instances in which the kidneys are seriously impaired, the administration of these massive doses of quinin must be followed by evil effects, as quinin in very large doses is capable of irritating the kidneys, particularly if they are impaired. Again, in those cases of pneumonia in which cerebral and meningeal symptoms are marked, such doses of quinin would certainly be contraindicated, and when the heart is feeble these doses are quite capable of gravely increasing cardiac weakness. Finally, it must be recognized that cases of pneumonia in many instances recover if they have no better treatment than rest in bed with proper feeding and good nursing, that others are doomed from the moment the disease commences, and that still others often need active stimulation, and support if they are to survive.

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### American Dermatological Association

The profession of Cleveland had a surfeit of interesting opportunities in the surgical and dermatological way during the last week in May. It was, however, unfortunate that the American Surgical Association was in session at the same time, as there were many members of the profession who would have been glad of the opportunity to attend both meetings. The American Dermatological Association was well represented and a large number of interesting papers were presented. The Pathological Exhibit held at the clinic of the Lakeside Hospital, Saturday morning, was a wonderfully interesting demonstration of the advances which have been made in dermatology.



## Academy of Medicine of Cleveland

The thirty-eighth regular meeting of the Academy was held at 8 P. M., Friday, June 15th, 1906, in the Assembly Room, Hollenden Hotel. Program: Historical—The Pilgrim Doctor of New England, Dr A. G. Hart; (1) Acute Pulmonary Oedema, Dr G. W. Moorehouse; (2) Myocarditis in Infectious Diseases, especially Pneumonia, Dr J. H. Lowman.

CLYDE E. FORD, M. D., Secretary.

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### THE CLINICAL AND PATHOLOGICAL SECTION.

The twenty-fifth regular meeting of this section was held Friday, June 1st, 1906, at 8 P. M., at the Cleveland Medical Library. Program: (1) Report of 650 Cases of Ether-Air Anesthesia by the Drop Method, Dr Myron Metzenbaum; (2) A Case of Multiple Gestation, Ectopic and Intra-uterine, Dr Hunter Robb; (3) Report of a Case of Malignant Endocarditis, Dr George Seeley Smith; (4) The Prophylactic Treatment of Puerperal Eclampsia, Dr F. S. Clark.

JUNIUS H. MCHENRY, M. D., Secretary.

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## Alumni Association of St. Alexis Hospital

The forty-third regular monthly meeting of the Alumni Association was held at the Hollenden on Thursday, June 7th, 1906. Program: An Instance of Apparent Sterility and Removal of its Cause, Jacob Tuckerman, M. D.; Empyema in Children, Chas. E. Ward, M. D.

MYRON METZENBAUM, M. D., Secretary,  
1242 Willson Ave.

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## German Medical Society

The 133rd regular meeting of the German Medical Society was held at 8.30 P. M., at 1006 Rose Building, Tuesday, May 1. Program: Demonstration *Spirochaeta Pallida*, E. Rosenberg, M. D.; Pyaemia after Tonsillitis Septicus, Daniel Heimlich, M. D.

The 134th regular meeting was held Tuesday, May 15th. Program: Noma, Following Scarlet Fever, Daniel Heimlich, M. D.; Typhoid, Followed by Perforation, E. Rosenberg, M. D.; Report of a case of Empyema, W. G. Stern, M. D.

W. E. SAMPLINER, Secretary.

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## The American Surgical Association

The meeting of the American Surgical Association, held in Cleveland, during the last week in May, proved to be one of great interest, not only to the members of the Association in attendance, but to the local profession as well.

An unusually large attendance of the Association was present, some 96 active members being registered. The sessions began at 9:30 in the morning and were continued until 1:00 p. m. The general meetings were open to the profession and were largely attended. Prof.

Dr F. Trendelenburg, of Leipsic, was the guest of the Association and read a most interesting paper upon the Surgical Treatment of Epispadia and Ectopy of the Bladder. A number of papers bearing upon the surgery of the intestines with especial reference to the occurrence of carcinoma was listened to with great interest. The papers by Dr Porter, of Boston, Jacobson, of Syracuse, and H. D. Pease, on the subject of "Serum Therapy of Tetanus," were followed closely.

Mr. Chas. A. Ballance, of London, England, read, by invitation, a paper on "Some Observances of Intracranial Surgery," which was listened to with great interest by a large and attentive audience. Mr. Ballance showed with great clearness, the possibility of hopeful results in a large number of intracranial conditions and illustrated with beautifully colored lanterns slides, a number of his own reported cases.

Thursday evening the Association was entertained by the Academy of Medicine of Cleveland, at the University Club. At the conclusion of the session, Dr Dudley P. Allen, was elected President of the Association for the ensuing year. This is the first time that Cleveland has been so honored.

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## Book Reviews

A Laboratory Manual of Physiological Chemistry. By Elbert W. Rockwood, M. D., Ph. D., Professor of Chemistry and Toxicology and Head of the Department of Chemistry in the University of Iowa, etc. *Second Edition, Revised and Enlarged.* With One Colored Plate and Three Plates of Microscopic Preparations. Large 12mo, 229 pages. Extra Cloth. Price, \$1.00 net. F. A. Davis Company, Publishers, 1914 Cherry Street, Philadelphia. Pa.

This admirable little work is so arranged that the student can obtain a very satisfactory knowledge of the subject by carrying out the experiments suggested. Most of these are simple and can be performed without any complicated apparatus. Those experiments which present greater difficulties or which require more elaborate apparatus are, however, given and are presented in smaller type. The explanations are clear and render the subject very attractive. A few illustrations are also given to elucidate the text.

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Urinary Analysis and Diagnosis, by Microscopical and Chemical Examination, by Louis Heitzmann, M. D., New York. Second revised and enlarged edition. One hundred and thirty-one illustrations, mostly original. New York. Wm. Wood & Co., 1906.

The author draws special attention to the importance of the microscopic examination of urinary sediments in diagnosing diseases of the urinary tract, he therefore includes a large number of original illustrations of the different normal and abnormal constituents of the sediment, in this respect especially is the work of value to the medical practitioner. The chemical analysis is also fully considered and the last part of the work deals with the diagnosis of various diseased conditions of the urinary system from the microscopic findings. The work is well prepared and has already proved its worth. This second edition has been considerably enlarged and improved.

Ellis's Demonstrations of Anatomy, being a Guide to the Knowledge of the Human Body by Dissection, twelfth edition. Revised and edited by Christopher Addison, M. D., B. S., (Lond.), F. R. C. S., Lecturer on Anatomy, Charing Cross Hospital, Medical School; Formerly Hunterian Professor, Royal College of Surgeons, England; Examiner in Anatomy, Royal College of Surgeons, England, etc. Illustrated by 306 engravings on wood, of which 75 are in color. New York, William Wood and Company. 1906.

This well known volume of anatomic demonstrations has been edited for this the twelfth edition by Dr Christopher Addison, of the Charing Cross Hospital. Among the many volumes devoted to anatomic demonstrations, none has occupied a higher place in the past than this work. In this last edition the text has been largely rearranged and follows now the ordinary course of dissection as found in most of our medical schools. The recent important contributions to anatomic science have been incorporated in the text, bringing the volume thoroughly up to date. A large number of illustrations have been added, many of them in color, adding much to the value of the work.

As an adjunct to Gray's Anatomy and as a guide in the dissecting room, we know of no similar volume equally helpful. The arrangement of the text with the marginal notations and the various tables introduced throughout, are extremely valuable additions. A sufficiently thorough index concludes the work.

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The Medical Diseases of Infancy and Childhood, with points on the anatomy, physiology, and hygiene peculiar to the developing period, by Alfred Cleveland Cotton, A. M., M. D., Professor of Pediatrics Rush Medical College, University of Chicago; Attending Physician for Diseases of Children Presbyterian Hospital; Consultant to the Central Free Dispensary, etc., etc. Formerly Physician-in-charge of the Chicago Isolation Hospital and of the Infectious Disease Wards of the County Hospital. Member of the XIII. International Medical Congress, Moscow. Honorary Member of the Societe d'Hygiene, Paris, etc. J. B. Lippincott.

In the preparation of this volume, the author has kept constantly in mind the necessity for a fuller knowledge of the anatomy, physiology, and hygiene of infancy and childhood, than is commonly found in the average text-book upon pediatrics; in view of which it is not surprising to find that the first 164 pages of Dr Cotton's volume are devoted to the formative period of infancy. A particularly valuable chapter, interesting from the developmental standpoint, is that devoted to congenital malformations. It is also a pleasure to note the simple description of the clothing for young infants and illustrations on the proper shoes and garments that are to be worn as the child grows older.

Part two is devoted to the diseases of children proper, and represents the author's broad experience among children. Throughout, special attention has been given to treatment and it is perhaps here that the author's individuality shows itself most forcibly.

The work is well written, descriptions are clear and the treatment throughout suggestive and helpful. The volume is concluded by an appendix devoted to the sick-room hygiene and also a number of therapeutic suggestions in the way of solutions and various formulae. This



volume, we are confident, will be accorded at once an important place among the text-books devoted to pediatrics. It is a volume which we can heartily recommend to the student and general practitioner.

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The World's Anatomists, Concise Biographies of Anatomic Masters, from 300 B. C., to the Present Time, whose names have adorned the literature of the medical profession, by G. W. H. Kemper, M. D., Professor of the History of Medicine in the Medical College of Indiana, Indianapolis, Ind. Revised and enlarged from the original serial publication in *The Medical Book News*. With 11 illustrations, nine of which are portraits. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. 1905.

This little volume contains a brief biographical sketch of all the famous anatomists of the world. The sketches are sufficiently full to give the important points in the lives considered and the numerous illustrations throughout add to the interest of the text.

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Nursing Ethics for Hospital and Private Use, by Isabel Hampton Robb, Graduate of the New York Training School for Nurses attached to Bellevue Hospital; late Superintendent of Nurses and Principal of the Training School for Nurses, Johns Hopkins Hospital, Baltimore, Md.; late Superintendent of Nurses, Illinois Training School for Nurses, Chicago, Ill.; Member of the Board of Lady Managers, The Lakeside Hospital, Cleveland, O.; Honorary Member of the Matrons' Council, London, England. In one volume of 273 pages. Size 5x7½ inches. Price \$1.50, bound in cloth. Sent post-paid on receipt of price by E. C. Koeckert, publisher, 715 Rose Building, Cleveland, Ohio. For sale by Medical and General Booksellers.

Mrs. Robb's work on nursing is too well known to need any extended review from us at this time. The earlier editions have been fully noted in the *Journal* and we can only add to our previous expressions of appreciation, that in this the third edition the entire text has been carefully reviewed and the work materially enlarged.

The text has been so arranged as to adapt it to the usual courses of instructions as found in our training schools and the chapter devoted to outlines for a course of nursing is extremely helpful and suggestive. Throughout, the necessary formulae are given and the text is everywhere so clear in its description of methods and procedures, that there can be no possible chance for the inexperienced to go astray in the matter of technic. This work will undoubtedly meet with even a greater appreciation than that accorded the earlier edition.

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### Books Received

The Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume III, The Eye, Ear, Nose and Throat, edited by Casey A. Wood, C. M., M. D., D. C. L., Albert H. Andrews, M. D., Gustavus P. Head, M. D. Series 1906. Chicago. The Year Book Publishers, 40 Dearborn Street.

"The Health-Care of the Baby", a Handbook for Mothers and Nurses, by Louis Fischer, M. D., 12mo, Cloth, 166 pages. 75 cents, net; by mail, 82 cents. Funk & Wagnalls.

Osborne's Introduction to Materia Medica and Pharmacology. An introduction to the study of Materia Medica and Pharmacology including the Elements of Medical Pharmacy, Prescription Writing, Medical Latin, Toxicology and Methods of Local Treatment. For the use of Students of Medicine and Pharmacy. By Oliver T. Osborne, A. M., M. D., Professor of Materia Medica, Therapeutics and Clinical Medicine in Yale University, ex-President of the American Therapeutic Association, etc. Lea Brothers Co., Publishers, Philadelphia and New York, 1906.

Twentieth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania. Transmitted to the Governor, December 1, 1904.

Walter Reed and Yellow Fever, by Howard A. Kelly, Professor of Gynecological Surgery, Johns Hopkins University. New York. McClure Phillips & Co., 1906.

The Eye and Nervous System, their Diagnostic Relations by Various Authors, edited by Wm. Campbell Posey, A. B., M. D., Professor of Ophthalmology in the Philadelphia Polyclinic; Surgeon to the Wills Eye Hospital; Ophthalmologist to the Pennsylvania Epileptic Hospital and Colony Farm, and Consulting Ophthalmologist to the State Hospital for the Insane at Norristown, and William G. Spiller, M. D., Professor of Neuropathology and Associate Professor of Neurology in the University of Pennsylvania; Clinical Professor of Nervous Diseases in the Woman's Medical College of Pennsylvania; Professor of Nervous Diseases in the Philadelphia Polyclinic; President of the American Neurological Association (1905). Illustrated. Philadelphia and London, J. B. Lippincott Co. Price, \$6.00.

Bovee's Gynecology. The Practice of Gynecology by Eminent Authorities, edited by J. Wesley Bovee, M. D., Professor of Gynecology in George Washington University, D. C. In one very handsome octavo volume, containing 838 pages, with 382 engravings and 60 full page plates in colors and mono-chrome. Lea Brothers & Co., Philadelphia and New York, 1906.

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## War Department—Office of the Surgeon General

Washington, May 26, 1906.

To the Editor, Cleveland Medical Journal,

Sir—I am instructed by the Acting Surgeon General to request that you will be good enough to insert a notice in the next issue of your journal to the effect that a preliminary examination of applicants for appointment in the Medical Corps of the Army will be held at various military posts throughout the United States on July 31, 1906; that full information in regard thereto may be obtained from the Surgeon General of the Army, and that applications must be filed prior to June 30. It may be well to add that thirty years is the prescribed maximum age, and persons whose age exceeds that limit are not eligible for examination.

Very respectfully,

M. W. IRELAND,

Major, Surgeon, U. S. Army.

San Francisco, May 5, 1906.

The Cleveland Medical Press, Cleveland, O.

Dear Sirs—San Francisco, as you know, has suffered most severely from fire and earthquake, and of the hundred and more homoeopathic physicians, only one of two have escaped, losing in every case good, and in several cases magnificent libraries. At the same time was destroyed the library of our County Society, to which we had access. There is, then, nothing left for us in the line of medical reference but the College Library, which is not modern, besides containing many foreign works. Realizing this, and the fact that it will take months and years to establish our practices once more, that many of our instruments, books and accounts are gone which will need gradual replenishing, knowing the fact that the agents of your several houses have always declared that the homoeopathic profession were their best patrons, it has been suggested that as I had acted as College librarian for some time past, thinking that you would probably be willing to help us at this time, it was requested that I represent the homoeopathic profession of this city, and ask if you cannot see your way clear to aid us with a donation of books which will be of use to us, and which will be housed in the college for the use of one and all.

Hoping that this may appeal to you in a proper spirit,

I remain, sincerely yours,

GUY E. MANNING, M. D.,

Prof. Physiology, Hahn. Med. College of Pac.

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## Medical News

Dr Barnhill, of Napoleon, recently made a trip to California.

O. T. Maynard and wife, of Elyria, sailed for home on July 1st.

C. E. Exline, of Canton, who has a broken leg, is reported as doing nicely.

E. E. Ellsworth, of Gallipolis, is in Chicago taking a post-graduate course.

B. E. Saunders with wife and friends, is taking an auto trip through Michigan.

Lillian Towslee, of this city, is home again after a four weeks touring trip in the east.

J. R. Owens, of Wayland, is spending June and July at a Pittsburg Medical College.

S. B. Smith has located at Carrothers and will continue the practice of medicine there.

Lewis Shaffer returned to his home at Canal Fulton, where he will spend the summer.

Dr Rhodes, of Smithville, has taken Dr Welch's practice, Dr Welch removing to Canton.

Ida Clarke, of Youngstown, is home from Atlantic City, where she has been for a few weeks.

Richard Henderson and wife are spending a couple of weeks in the mountains of Virginia.



E. J. Cauffield, of Akron, has returned from a three weeks business trip to Utah and Colorado.

Charles E. Rice, of Alliance, who has been making a trip around the world, is at home again.

J. O. Glass, of Springfield, sailed June 22 for Europe to take a post-graduate course in medicine.

C. A. Hatch and wife, of Newark, left home about June 6 for an extended tour through the east.

F. S. Pomeroy, of Chardon, who was ill for many weeks with typhoid fever, is now able to be out again.

L. McFadden, who has been located at Good Hope for four years, will locate at Washington about July 1st.

Dr Spencer and family, of Jefferson, who have been spending the winter in Florida, are at home again.

Carl Hoy, of Wellston, who is attending medical school in Chicago, arrived at home to spend the summer.

A. M. Williamson and wife, of Dayton, have returned from an eastern trip where they have spent several weeks.

Robert Hodgson left about the middle of June for a trip to his old home in England. He sailed on the Celtic.

Dr Kenan, who recently graduated from Starling Medical College at Columbus, will locate in Upper Sandusky.

E. W. Jones is now in partnership with the Schuemann-Jones Co., successors to Ingram, Schuemann & Co.

C. E. Schilling, wife and daughter, left June 25, for a month's trip to Atlantic City and eastern points of interest.

Harry Schirrmann, a popular young Portsmouth physician and Miss Edith Swinton were quietly married June 5th.

John Deetrick, of Youngstown, who has been ill for several weeks, has left the hospital and resumed his practice.

Dr and Mrs. Merz and son started June 17 in their model K Winton for a trip through the southern part of the state.

Alva Baker, of Brooksville, has gone to a sanitarium near Indianapolis where he will remain until fully recovered.

Albert R. Baker and wife, of this city, are now at their summer cottage, situated at Villa Beach, Lake Shore Boulevard.

In the graduating class at Harvard Medical School, Emil H. Stone, a Clevelander, has been awarded the highest honors.

G. C. Hamilton, of Louisville, was absent about two weeks, traveling through the New England states and eastern Canada.

E. S. Holmes, of Plain City, is in New York City, where he will be for a couple of months, taking a post-graduate course.

The members of the Belmont County Medical Society were entertained by the Barnesville physicians, June 12, at the Columbian Hotel.

W. S. Fitzsimmons, of Steubenville, has returned from Philadelphia where he has been attending the Polyclinic Post-Graduate School.

A. J. Erwin, of Chicago, O., who has been spending the winter and spring in California, returned June 19 and will stay until next winter.

E. E. Rogers, of Bowling Green, is planning a trip to Europe. He expects to be away about six months. Mrs. Rogers will join him in Italy.

V. H. Tuttle and wife returned to their home in Orwell, after their trip to Washington, Philadelphia and Boston. They report a delightful time.

L. V. Reynolds and wife, of Dayton, have gone to Atlantic City for a three weeks stay. They will visit at Huntington, W. Va., before returning.

S. P. Ecki and wife, of Mansfield, who have been spending the past month at various points in the northwest and also at the Ruby mine, have returned.

Frank P. Moore, of Lisbon, has been appointed examining surgeon for the U. S. Marine Corps, with full authority to examine candidates for enlistment.

Wallace Taylor, for many years a medical missionary in Osaka, Japan, reached Oberlin, June 21. Dr Taylor will spend the coming year with his family at their home.

A. C. Ridout, recently of New York, has come to Ravenna and established offices. Dr Ridout is an eye, ear, nose, throat and lung specialist and formerly lived in Warren, O.

D. E. Harris, of the staff of physicians at the Massillon State Hospital, has resigned. Dr Harris and wife have left for Seattle, Washington, where he will start a practice of his own.

Burnett Weaver, of Dayton, has returned from a ten months' trip to Europe, where he studied medicine at Berlin, and Vienna. He visited France, Italy, England, Switzerland and Hungary.

Virgil Guittard, of New Bedford, who was engaged as army surgeon in the Philippines for the past three years is visiting in Millersburg. He is at present taking a special course in surgery at Columbus.

The Crawford County Medical Society held its monthly meeting as usual. Thomas Grant Youmans, of Columbus and A. Rhu, of Marion, were the speakers. The meeting was interesting and profitable.

Dr Bunce and Miss Bunce, of Oberlin, left June 13 for Montreal and from there sailed for Europe. Dr Bunce will study in hospitals of London, Elinburg, Paris and other cities. He will return to Oberlin about the middle of August.

Patrick Henry O'Hara, of Eaton, a student in the Cincinnati Medical College, has won honorable mention in his class of 36, passing into his senior year's work as one of six who were given an internship at Seton Hospital for the year 1907.

D. E. Stephan, who, for several years was with Dr Priest, medical examiner for the B. & O. road at Newark, O., and who for some time has been acting as traveling medical examiner, has been appointed medical examiner for the B. & O., with headquarters at Fairmount, W. Va.

The Huron County Medical Society met on the afternoon of June 14, with a fair attendance. The subject for consideration was vivisection and several interesting papers were read by various members of the Society. A. L. Osborne, delegate to the state convention, read an interesting report of the doings there.

About 25 members attended the Lorain County Medical Society meeting at Lorain on June 13. T. E. Brook read a paper on "Suggestive Therapeutics," which was well received and showed considerable thought in its preparation. O. B. Monosmith read a paper which had no title but dealt with graft and the unethical in the practice of medicine.

George D. Kahlo, Professor of Medicine and Clinical Medicine in the Indiana Medical College, the School of Medicine of Purdue University, and formerly Dean of the Central College of Physicians and Surgeons, removed early in May to French Lick, Ind., where he has accepted a position as physician in charge at the French Lick Springs Hotel and Sanatorium.

The Butler County Medical Society met June 13, and listened to an excellent paper on "Treatment of Summer Complaints," by Dr Mitchell, of Cincinnati, and a treatise on "Gastro-Enteritis," by James Grafft, of Trenton. There was a large number of physicians in attendance and following the program the Society adjourned to Howald's dining rooms where an elaborate dinner had been prepared.

The Belmont Medical Society held its regular meeting at Barnesville. Several important matters were taken up and many extra arrangements were made for the event. One of the principal features was a strawberry banquet, which was furnished by the Barnesville doctors. The program was rather a unique one and was as follows: "Strawberries on the Tree," W. L. Judkins; "Strawberry Shortcake," A. H. Heweston; "Strawberry Blondes," Dexter W. Boone; "Skepticism," F. A. Korell; Paper, A. B. Hobson.

The twenty-seventh regular meeting of The Lake County Medical Society was held in the Assembly Room, Parmly Hotel, Painesville, Ohio, at 8 p. m., Monday, June 4th, 1906. In accordance with the Constitution and By-Laws this June session was set apart for the discussion of the Business of the Society and the Profession of the County. Program: Do We Sufficiently Respect the Principles of Medical Ethics? Drs Amidon and Kenning; How Should We Encourage Reports of Cases, The Presentation of Clinics, and the Reading of Papers by Members of the Local Society? Drs Merriman and Hawley; Is a Uniform Fee Bill Advisable or Possible in Lake County? Drs York and Winans; How Shall We Increase the Membership? Drs Moore and Stork; Are There Quacks Within the County? Drs House and Good. Five minute talks without other previous notice were given.

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## Deaths

M. F. Lee, a former Coshocton County boy, died recently.

George W. Stevens, of Toledo, died June 9, at the age of 59 years.

Dr. Rockwood, a physician of Lorain, died June 2, at the age of 65 years.

J. H. Ferrel, a prominent citizen of Carey, died June 19 after an illness of eight weeks.



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## Native Doctors of Burmah

JOHN ROSS STEWART, M. D., Cleveland

There are no terrors of a state board examination to the doctor of Burmah. No long hours of study bother him, nor is he required to attend college for even a short time, in order to prepare for his medical degree. He takes it upon himself to administer drugs and heal the ailing. No one knows how long he has been delving into the science, when all at once he is known as a doctor. A certain line of drugs crudely prepared for the common diseases is passed on from one generation to another.

There are two schools of medicine—Dietists and Drug-gists. The latter seem to be the most popular of the two, due probably to the mystifying and numerous drugs on exhibition. The Burman, in this instance, is deeply awed by display. Popularity does not always make the best doctor, though, as the native, in serious ailments, always resorts to the man who combines the ideas of both schools. With the schools dividing the body into four parts, we find they name the divisions after the elements—Earth, Fire, Water and Air. A loss of equilibrium in any of these brings on illness.

Drugs they administer just as whim or fancy strikes them—and in varied quantities. The fever patient may be given ginger, cayenne, cloves, etc., and, should there be no signs of recovery very soon, the doctor continues with his pet series until either they are exhausted or the patient is no more. However, in the lesser ills they often strike just the proper thing.

In diagnosis the wise medic refers to the birth certificate to obtain the time of the patient's birth. He knows from this

the element present. Sometimes there are two in the same family down with a disease of the same nature. They are never treated alike unless they are twins. Being born on different days makes it imperative to treat them differently.

The dietists will order extremely odd diet lists, and patients are often not allowed food which they really require, simply because the food happened to have a name commencing with a letter which was assigned to the day of his birth. It matters little what he needs. Had he been born on Sunday, eggs would have been forbidden. Rice is the best food the Burman has, yet if he had come into the world on Saturday, he would therefore do without rice, if the dietist got hold of him.

When the native finds himself ill, he becomes panic-stricken. In the state of his alarm he sends someone off to order a doctor to come in haste. To be safe they generally call up the whole profession. The first arrival commences, perhaps, on the heart, and, if no benefit results, the next on the scene tries some other region. He may also fail and be sent off with a small fee. If more have come, they all take a try, or ere this, may be the patient's means have given out, or he has had the last spark of life driven from him. This system seems unique, as we can figure out that if the patient were rich, the whole profession would be in waiting and hasten materially the patient's demise.

Dysentery they can cure quicker than other maladies. Ulcers and sores of all kinds yield to their favorite medicine, oil of earth.

They have a fair knowledge of the barks and herbs, as well as the simple minerals. Seldom do they use liquids. Powders are in general favor. These the doctor carries in a series of small tubes of bamboo, lacquered or colored with some dye—usually a glaring red. In ophthalmic cases the remedy prized most highly is the scrapings of a meteoric stone. Of what use this unique powder is to the eye no one knows, but no doubt the numerous corneal scars one sees among these people is due principally to the meteoric dust—not so much from other causes. In epilepsy the requisite thing is merely the scrapings of a rhinoceros horn. Skins of snakes and lizards enter into most of the prescriptions, adding a certain mystery to the mixture. I have seen huge black pills the size of a quarter given for toothache.

Massage is practised somewhat, but not by the medical men. They call in some woman or nurse, and it is surprising how well they know the anatomy. In rheumatism there is nothing but massage used, as drugs do not seem to have effect on the Burman.

In the upper provinces the fear of leprosy is very great. Those inflicted are outcasts, being obliged to live by themselves in some colony, of which there are several—some under the management of Europeans. The dread of a loss of a limb is as great as that of leprosy. The native prefers to die at once, rather than go through life with a maimed body.

The prognosis of a case depends not on the patient and the extent of the disease, but is in the hands of the quack. He asks the patient to pronounce certain letters and words. Hesitation or mispronouncing any of them gives the doctor an idea of the likelihood of recovery of his charge.

Often the sick are drugged to full extent of the catalog without relief; it is then that the doctor claims the patient is possessed of an evil spirit and there is no hope of medicine curing him. Being superstitious, he asks for the witch doctor, whose barbarous methods kill or cure. Sick people are often beaten and maimed by these men in endeavoring to drive what they think is the devil out of the body.

There are 96 diseases known to the Burman. Some of the names are of extreme length and most difficult of pronunciation. It would seem that the mere sound should cure without medical aid.

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## Vesical Hyperesthesia

DR. CHARLES G. FOOTE, The Osborn, Cleveland, O.

This condition has been variously known as "irritability of the bladder," "neuralgia of the bladder," "neuralgia of the prostatic urethra," "cystitis without catarrh." However, as in most all cases the conditions are essentially the same, the term "Vesical Hyperesthesia" is the one now generally accepted. In other words, the condition is an increase in the normal physiologic sensibility of the bladder. Whereas in the normal state the desire to urinate occurs when the bladder becomes distended, in the hyperesthetic state, the desire comes when



there is only a little urine present. The affection can become so distressing and at times so unbearable that I have known of one nervous woman who threatened to commit suicide if she could not be relieved.

The causes of the disease are various and sometimes obscure. Usually in men it is the result of a gonorrheal posterior urethritis or prostatitis, the hyperesthesia persisting after the original disease has been recovered from. It may also result from some urethral obstruction, which may be either the slight infiltration of a chronic urethritis, a stricture of small caliber, a phimosis or prostatic hypertrophy. In the female it may be due reflexly to some disease of the uterus or adnexa, but in most of the cases that I have treated it has been a pure neurosis. We may have the following as causative factors in both sexes: Abnormal conditions of the urine, such as phosphaturia, oxaluria, lithemia; highly concentrated urine and polyuria; reflex irritation from vesical or renal calculus or pyelitis; changes in temperature may bring it on in individuals unusually sensitive, also abnormal sexual conditions, as excesses or constant ungratified sexual desire.

The principal symptom of which the patient complains is increased frequency of urination, urgency of urination, usually associated with more or less distress or pain, especially if the act be delayed. The pain is usually referred to the bladder region just above the pubis, and in some cases may be severe. The most characteristic feature, and one that we should not forget, is that the frequent urination occurs during the day and not at night. Of course, if the patient is nervous and wakeful during the night, he will be troubled, but if he sleeps soundly, he will not be bothered. On examination of the urine no pus or mucus will be found, which excludes, of course, inflammation of the bladder or urethra, as inflammation of a mucous membrane cannot occur without discharge. Exploration with a sound will demonstrate marked hyperesthesia of the urethra and vesical neck, which will be evidenced not only by the pain produced, but occasionally the spasm of the cut-off muscle, preventing the further progress of the sound, and perhaps leading the inexperienced practitioner to diagnose an organic stricture. The endoscope and cystoscope show the urethra and bladder to be normal with the exception sometimes of an hyperemia of the trigone. When the underlying cause

of the disease can be corrected, it can usually be promptly cured; but there is more or less tendency to recurrence, especially in neurotic women. The treatment is usually comparatively simple, although some cases are exceedingly difficult to cure. The introduction of the cold steel sound No. 26 or 28 Fr. every other day, or in some cases every day during the first week, and then perhaps twice a week, will be sufficient of itself oftentimes to effect a cure. In some stubborn cases it may be necessary to inject into the prostatic urethra, by means of a Keyes-Ultzmann syringe, Thallein Sulphate 5%, Cocaine 4%, or a solution of silver nitrate  $\frac{1}{2}$ -1%. In women the greatest relief is obtained by the insertion of short urethral dilators, after cocainization of the neck of the bladder with 4% cocaine solution.

The following brief notes of cases may render the subject somewhat clearer: E. C., about 30 years of age, was referred to me Sept. 25, 1903, for treatment of an aggravated bladder trouble, which had existed for some years, and for which she had been treated by various physicians. She had been treated for ulcer of the neck of the bladder with strong applications of silver nitrate, which were exceedingly painful and produced no amelioration of the symptoms. She had been curetted with the idea that her trouble was caused reflexly by a slight leucorrhea which she had, with absolutely no benefit. She had taken quantities of medicine internally with the same results. The symptoms consisted of frequent and often painful urination, attended sometimes by tenesmus, worse during the day and never troubling her at night if she slept well. Owing to this unfortunate neurosis she could not go to the theater or receive company without having to urinate very frequently. The patient was very depressed and discouraged, and did not believe that anything would help her. Urine normal; no history of cystitis; cystoscopy negative. Patient evidently of neurotic type. Diagnosis: Vesical hyperesthesia. Treatment: Tonics and sedatives, cold sponge baths in the morning, dilation of urethra with Kelly's dilators, preceded by instillation of 4% cocaine solution. Practically cured in five treatments. In June, 1904, she again consulted me for the same difficulty, which had come on her immediately upon her return from Denver, where she had spent the winter. On July 21, the same year, after a month's treatment, she was again discharged free from difficulty, and on January 10 of this year, she reported in response to a letter from me that she had remained perfectly well.

Mrs. B., married, with three children, was referred to me March 22, 1902, on account of frequent and painful urination and tenesmus, which she had had for three months. She was

obliged to be on her feet all day, and the difficulty got worse in the latter part of the day, the night being often exceedingly trying. Urine normal. Cystoscopy showed the bladder to be normal, except some dilation of the vessels of the trigone. Uterus anteflexed, menstruation lasted two days, scanty and painful, but regular. Diagnosis: Vesical hyperesthesia. Treatment: Instillations of urethra with 4% cocaine solution, followed by dilation with Kelly's dilators. Urethral suppositories  $\frac{1}{8}$  grain morphin at night, hot douches, and vaginal tampons. Patient was discharged cured in two months. She reported to me in May of this year, that she had remained perfectly well all the time since I had treated her.

Miss M., aet. about 35 years, single, professional nurse, was referred to me December 24, 1904, for bladder trouble. Patient was evidently of a neurotic type, and said that as a girl she had been troubled with frequent urination and incontinence at times, as for example when she would see or hear running water, such as a brook or a river where the current was swift. She had been a morphin habitue for nine years, but had been completely cured, so she said, one year before I saw her. Her bladder difficulty developed one year before she was cured of the morphin habit, and began with increased frequency of urination day and night, at times being obliged to urinate every half hour, also some pain at end of urination. She says that as far as she knows the urine was never cloudy, nor was there ever any blood in it. For the past three months condition much aggravated, life unendurable, incontinence three or four times every night, and empties bladder every half hour during the day to prevent incontinence. If she knows that a water-closet is handy, she can hold it much better, and if she was deeply interested in something else, she might go for some time; then, as soon as it occurred to her, she would have to urinate immediately. (Lydston mentions a physician who always felt the desire to urinate when a patient would tell him about his bladder symptoms.) Has treated with a number of physicians with no benefit, but no one has ever used local treatment. Urinalysis negative except that the specific gravity is very low, about 1003, and the quantity about a gallon in 24 hours. Cystoscopy unsatisfactory on account of the polyuria, but a later examination revealed only an hyperemic condition of the vesical neck. Diagnosis: Hyperesthesia of bladder, incontinence and polyuria. Treatment: Restriction of fluids, fluid extract ergot in 10-drop doses, t. i. d., dilation and cocainization of vesical neck. January 10, 1905, urine had a specific gravity of 1020, acid, no albumin or sugar. Microscope showed some mucous cells and bladder epithelium. January 20, 1905, less than a month after treatment began she was practically well. The patient had some return of difficulty and came back the latter part of March, and treated about a month with considerable



relief. The last I heard of her she was again being treated for the morphin habit, and I believe that she commenced taking morphin after an attack of grip just before she came to me for treatment for the last time. However, you will find that in many of these neurotic women a relapse will be common and although I have never seen a case, which has not been benefited by the treatment outlined, it might in certain conditions be necessary to forcibly dilate the vesical neck under anesthesia. This procedure will rarely fail to cure this most distressing condition.

## Notes on the Examination of 538 School Children of the East Cleveland Schools

BY L. K. BAKER, M. D.

The following statistical report with its accompanying notes is of interest as showing the unusual high standard of the children of the East Cleveland schools, and is further of value as showing what is possible to accomplish by this sort of careful systematic examination in the way of recommendation of parents and teachers.

	No.	Per cent.
Pupils examined .....	538	
Pupils examined whose vision for distance is practically normal .....	477	89
Pupils examined whose vision for distance is abnormal.....	59	11
Pupils examined with excessive farsight (usually with accompanying astigmatism) .....	43	8
Pupils examined with nearsight (usually with some astigmatism) .....	28	5.2
Pupils examined with inflammation of lids of one or both eyes .....	136	25.3
Pupils examined wearing glasses at time of examination ....	23	4.2
Pupils examined whose parents were notified—positively—that glasses were needed .....	13	
Pupils examined to whose parents it was suggested that the eyes needed treatment and should also be examined with reference to glasses—during the summer vacation.....	18	
Pupils whose parents were advised by letter as to the hygiene of eyes .....	34	
Pupils whose parents were advised by letter to have eyes treated for styes .....	4	
Pupils whose parents were advised by letter to have eyes treated for inflamed lids .....	8	
Pupils whose parents were advised by letter to have eyes treated for crossed eyes .....	14	

### NOTES.

1. It will be noticed that the vision test, with the test letters, shows the children of the East Cleveland schools to be above

the average. In general health I found them far superior to the rank and file of the children of the Cleveland city schools.

2. Many children with some eye strain but no important error of refraction were cautioned, at the time they were examined, not to work at close range (6 or 8 or 10 inches) with pencil or pen. This way of doing work at the desk had evidently led to eye strain in a number of cases.

3. The test letter tests were made in the halls of the school buildings. The ophthalmoscope examinations were made in the lunch rooms, which can be darkened and are well suited to the purpose.

4. A complete list of pupils whose parents have been written, together with a brief of the advice given, will be placed in the hands of the superintendent in time for use at the beginning of the next term.

5. Teachers should receive some further instruction in the use and adjustment of window shades. Probably the superintendent had best mention the matter to them early in next term. The large number of cases in which were found slight inflammation of the lids and of the inner coats of the eye suggest that improvement in the lighting of the rooms is needed. Since there appear to be plenty of windows it must be that some teachers habitually exclude the light, through the misuse of the shades. This was frequently found to be the case in the city schools.

6. At Prospect School a number of pupils, convalescing from measles, were examined. Such of these as had inflammation of the interior coats of the eyes were personally advised not to use the eyes, except for school work, for reading, sewing or other forms of nearwork during the next five or six weeks.

7. The percentage of children wearing glasses seems small—but 4.2% or one in 24—and is not in accord with the popular idea that “So many children wear glasses these days.” The examinations show that at least twice as many children ought to wear glasses as now have them. This is a low estimate. It is likely that from sixty to seventy of the cases examined would be much benefited through the use of properly fitted glasses—at least during the school period.

8. Quite a number of cases of imbalance of the external muscles of the eyes and crossed eyes were observed and in all of these cases parents were urged to have the children treated. This

may result in saving a number of eyes. All such cases should be watched by both teachers and parents.

While Dr Alport's plan of having the eyes of school children tested by teachers is useful as an introductory measure I am satisfied, after reviewing the reports of teachers during five years, that the great majority of the latter are not sufficiently interested in these matters to induce them to make reliable tests and to report and secure treatment for pupils who need it. In the end all of this work will have to be done by oculists and their assistants.

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## Concerning the History and Value of Massage and Exercise

BY BERNHARD ANDERSON, Masseur and Physical Director.

In the struggle against disease, science has furnished many different forms of treatment, and, though a physician may specialize, it will greatly increase confidence in him if he is acquainted with all available therapeutic agents.

If we go back to early times we find that the history and literature of massage and exercise is as old as that of any curative agent. The excuse for its being left somewhat behind is, that it is rather laborious and some men have thought themselves beyond and above such a task, with the result that many doctors hardly know what massage really is, and thus furnish a reason for the existence of osteopathy and other forms of treatment similar to massage.

If the medical profession in general would more fully appreciate massage treatment and exercises, and prescribe them when needed, employing people who are properly educated to give treatment, then the osteopathic cult would gradually vanish. A reason why the medical men do not more frequently prescribe massage is, no doubt, the poor results obtained by many operators, and much harm has been done to patients as well as to the reputation of massage treatment, because the physician has not been careful enough in the selection of the person to apply the treatment, but simply told the patients to have massage from somebody and anybody.

When a physician decides to have this treatment applied to a patient, a detailed statement of the conditions should be made to the masseur and a complete understanding as to what is to be accomplished. This reminds me of an incident. A gentleman came into my office and said: "I am a doctor and



I wish to have massage to my shoulder." I told him I would be very glad to do what I could for him if he would please explain what the ailment was and what he expected to have done. "You cannot cure me, as my trouble is there to stay, and I don't see any reason to waste time explaining things to you," was his reply. "In that case," I said, "I can do nothing for you." However, the gentleman in question came back in a few days and I had the satisfaction of eliminating his trouble to a great extent. Since then I have, to our mutual satisfaction, given treatment to several of his patients.

It is impossible for anyone to gain a thorough knowledge of the system, and learn to give treatment understandingly from a few lectures or a brief manual. There are, however, many conditions in which massage, together with a few passive and resistive movements, not only give relief, but effect a cure, when applied according to physiologic laws.

A short review of the literature of this curative agent may be interesting. Nature early taught man to knead his flesh or bend his body to relieve him of certain ills, and the practice of these maneuvers is as old as mankind. Books were written about gymnastics as early as 3000 years B. C., among them the Kong-Fu in Chinese. We also know that the Persians, Phoenicians and Egyptians knew about massage as well as gymnastics. The Greeks, however, were the first to make genuine progress in this branch, as in so many others. Esculapius, Apollo's descendant, is said to have been the inventor of the art of gymnastics.

Mercurialis in the sixteenth century wrote a book, "De Arte Gymnastica," or the science of bodily exercises, which he has divided into Gymnastics for Athletes, for the Military and for the cure of disease. To this latter branch, as used by the Greeks and Romans, he gave special attention, and pointed out the use of the different movements in different diseases and also gave rules for their application in special cases.

It is interesting to read about Thomas Lydenham, 1624-1689, a noted English physician, called "the English Hippocrates." He left the routine practice of his time and based his own upon the theory that there is in nature a recuperative power which ought to be aided and not opposed. He said that "if anyone knew of the virtues of friction and exercise and could keep this knowledge secret, they might easily make a

fortune." In this respect he has many descendants at the present day.

Thomas Fuller, another English physician, published, in 1704, "*Medicina Gymnastica*," on the value of exercise in preserving health and curing disease.

Dr F. Hoffman, who was physician to the King of Prussia in the first part of the eighteenth century, wrote that exercise is the best medicine for the body and that we cannot imagine how salutary and favorable to health it is, for it excites the flow of the spirits and facilitates the excretions of the blood.

As Heroditus observed the curative effects of gymnastics on his own delicate health and thereby was brought to use movements in therapy, so did the Swede, Peter Henrick Ling, in the beginning of the nineteenth century, study the movement treatment, because he had cured himself of rheumatism in the arm by percussions.

Ling had been an instructor of gymnastics, but afterward, studying anatomy and physiology and the influence of movement and manipulations in different chronic diseases, he founded a system of gymnastics upon a physiologic basis. This is universally known as "the Ling System," or the "Swedish Movement Treatment." By ardent study and labor, Ling succeeded at last in securing recognition for his new ideas, and in 1813 the first college for pedagogic, military and medical gymnastics, called the "Royal Gymnastic Central Institute," was established in Stockholm at the expense and under the supervision of the Swedish government. Ling was its first president. The principal studies for graduation are anatomy, physiology, pathology, hygiene, diagnosis, principles of the movement treatment and the use of exercises for general and local development.

In the rooms of the institution persons of every condition and age, the healthy as well as the sick, the wealthy as well as the poor, executed prescribed movements. The number of those who adopted the use of the therapeutic movements increased every year, and among them were physicians, who, in the beginning, had been the most opposed to Ling.

Ling died in 1839. His pupils, Brandting, Georgii, Liedback, and G. Indebetton, published Ling's theories, and by this means, and through the many foreigners who studied at the

Central Institute of Stockholm, Ling's system soon became known in a great part of the world.

Dr Joseph Schreiber, of Vienna (in his "Manual of Massage and Muscular Exercise"), says: "The most powerful impetus, however, given to the revival of mechanotherapy originated with a Swede, the creator of the modern 'movement cure,' whose doctrines, spreading to England and Germany, have, after many decades, and in spite of being marked by some extravagances, gained universal recognition."

De Ron, in St. Petersburg; Georgii, Indebeton, Bishop and Roth, in London; Rothstein and Neuman, in Berlin; Richter, in Dresden; Schreber, in Leipzig; Melicher, in Vienna; Eulenburg, in Baden; Laisne at the "Hopital des Enfants Malades," in Paris; Taylor, in New York; and many others, established special institutions for the movement treatment and published their results, partly in medical papers, partly in books.

Dr Douglas Graham, of Boston, has written several articles, and also a "Practical Treatise on Massage," in which he says: "In 1844 the Supreme Medical Board of Russia appointed two members of the Medical Council to inquire into the merits of the movement and manipulation treatment as practiced by M. De Ron, one of Ling's disciples at St. Petersburg, who had been using it then for a period of 12 years. From the highly commendatory report of the councillors we quote the following: 'All passive movements, or those which are executed by an external agent upon the patient, as well as active ones produced by the effort of the voluntary muscles, and different positions with the aid of the apparatus or without it, are practiced according to a strictly defined method, and conducted rationally, since they are based upon mechanical as well as anatomical principles. Experience teaches us the usefulness of the institution, as many patients thus treated have recovered their health after having suffered from diseases which could not be cured by other remedies.' "

It was not, however, until after the middle of the nineteenth century that massage became really known and was considered by the medical profession as a scientific and valuable remedy in the treatment of diseases.

Dr Metzgar, of Amsterdam, who was a famous masseur in the early sixties, was a man who understood how to win



the confidence of the public, and later, through his many pupils, exercised a powerful influence upon the standing of massage in the medical world.

The best known German and Austrian physicians, as Langenbeck, Bilroth, Esmark, Mon Mosengeil, Gussinbauer, and many others, began to employ it scientifically and publish its effects. Soon the conviction gained ground that massage was a powerful curative agent, which had been neglected by the profession and therefore had been abused and overestimated by ignorant people. All over northern Europe massage was known and constantly used, and Prof. W. S. Playfair, of King's College, London, wrote in 1883, "The Systematic Treatment of Nerve Prostration and Hysteria," which greatly encouraged the more general use of massage.

In the United States massage has been much known and applied for the last two decades, and men like Dr S. Weir Mitchell, Dr Douglas Graham, Dr Taylor and a few others have done much for the development and reputation of the treatment, and have added a great deal to its literature. It is still, however, much opposed by many physicians, and will be until it becomes a compulsory study in the medical school.

Massage is a word often misinterpreted and erroneously used, sometimes intentionally, sometimes by ignorance. It is based on plain physiologic laws and has nothing in common with magnetism, magnetic healing or Christian science. It is also a false idea that massage is merely plain rubbing and needs only to be applied by strong hands for an hour at a time. The old proverb that if a little is good, more is better, is rather a dangerous one; as is, also, the saying, that if massage does no good, it can do no harm. Massage should be given with discrimination according to the indications in the individual case.

General massage should never cause pain. If black and blue spots appear after the treatment, it is a sure sign that the operator is lacking in efficiency. Contrary to this rule, I have often heard people talk about the excellent and strong massage that made them black and blue all over. Local massage, however, often has to hurt, and if the patient is strong and can bear it, the time of convalescence can often be reduced by strong and vigorous treatment.

The variety of movements and duration of treatment is of great importance. The operator must display as much judgment and tact in applying treatment as the physician in the administration of medicine. The character of the illness, the sex and the general condition of the patient should be considered, and it is always a good rule to begin with very mild treatment until the patient becomes accustomed to the manipulations.

As above indicated, it is absolutely impossible for anyone to gain a thorough knowledge of this system from a few lectures or a manual; it requires ardent study, a great deal of practice, and a perfect familiarity with anatomy and physiology. Finally, here as elsewhere, good results from massage can come through experience only.

Massage consists in a series of manipulations of the tissues, in a variety of forms and strength. By the Swedish school, they are divided into four groups; effleurage; stroking; frictions; petrissage, kneading, rolling; tapotement, percussion, vibrations.

The circulation in the blood vessels and lymph channels is more or less affected by all the different manipulations, but as the veins are near the surface and the effleurage covers a larger area, this is the movement used when we wish to improve the circulation and increase its rapidity. The circulation of the blood throughout the system is of momentous importance. A number of our most dreaded ailments are due to a faulty circulation of the blood. As effleurage increases the circulation, it is a valuable means of aiding the resorption of infiltrations and exudates, and, if applied in time, to prevent an inflammation. For the same reason it also improves the assimilation and distribution of the nutritive products, restores the muscle tissues after fatigue, and, finally, has a sedative effect on the nervous system.

Frictions tend to remove deposits, exudates and other pathologic substances in the tissues, and contributes to their resorption. These manipulations are especially indicated in mon- and poly-articular diseases, but are also employed when abdominal massage is indicated.

Petrissage is the principal manipulation of the larger groups of muscles, as on the extremities, back and chest. Its ability to check atrophy is its most important characteristic.

This manipulation, also, has much in common with effleurage and frictions.

The effect of percussion is especially manifest in the nerves, nerve centers, and in those internal organs that cannot be directly massaged. As percussion closes and reopens the blood vessels in rapid succession, it also has quite an influence on the circulation.

Abdominal massage is so valuable that, although it consists of the manipulations previously mentioned, it may be considered by itself. The manipulations used are strokings, beginning at the cecum and passing to the ascending, transverse and descending colon. Friction and petrissage of the abdominal muscles are also employed. Abdominal massage increases the glandular secretion in the gastric region, aids in the digestion of food, improves assimilation, increases the number of red blood corpuscles and has a marked influence on the circulation of the portal system. It also stimulates the urinary organs and increases the quantity of urine.

Exercises or gymnastics have, by Ling, been classified into School, Military and Medical Gymnastics. Movements of any part of our body require a contraction of the muscle-fibres, and most movements are performed by the function of groups of muscles combined. A muscle in action requires more nutrition, and a more rapid exchange of products should consequently take place. The products of metabolism must be carried away and replaced by a nutritive supply. This transmission is performed by the blood which by means of the organs of circulation is carried to every part of the organism. Waste products are carried away by the blood and material for the rebuilding of tissue is secured from the same source.

While the heart is the chief organ of circulation, if left without assistance its function cannot be properly performed. It needs the aid of the skeletal muscles, which, by alternate contraction and relaxation, act as a heart *in loco*. Consequently every movement, active or passive, increases the flow of blood.

Further, if a person is left inactive and absolutely quiet in bed, a marked atrophy of the muscles will be noted in a short time. This again leaves as a consequence the incapability to keep the body in an erect position and to perform necessary movements. All this change in the tissues is a sequence of too



slow exchange of products, and the same degeneration will take place wherever there is a lack of circulation, be it caused by an inflammatory process or by some other obstruction.

In connection with movements, special attention should be given to the respiratory muscles and organs, since oxygen is a main factor in the building of new tissues, and the repair of old. The respiration should be carefully conducted in harmony with the exercises. The muscles performing this function are the diaphragm, the intercostals, the levatores costarum and the scaleni. The chest capacity is, by the action of these muscles, alternately expanding and contracting. This has a considerable effect upon the circulation, as it permits an increased flow of blood through the heart.

Two things should be taken into consideration when exercising: the purpose and the medium. The purpose is the perfection of form, elasticity and health; the exercises are the medium through which we gain it. Although the exercises are only the medium, they should be performed very accurately and according to a certain classification. If the posture and active movements of children were more carefully guarded and corrected from the time they begin to walk until they are fully developed, a number of deformities and diseases could be avoided, since many of these are caused by improper care, bad habits, and a lack of proper exercise. Scoliosis, so common among school children, has, in the largest number of cases, its origin in the incorrect adjustment of the school bench.

Not only the physical condition, but also the mental is improved and benefited by gymnastic exercises. How many women, especially, there are who, for lack of exercise, become hypochondriacs, and make their homes and surroundings miserable both to themselves and their associates. A few weeks or months of systematic exercises will in most cases of this description bring about a complete change.

Exercises are given to strengthen, not to exhaust the organism, and therefore they should be used with careful discrimination as to each individual's ability. A very important fact is, that all gymnastic exercises should be symmetrical, that is to say, if a fixed number of a certain kind of movements are taken with the left portion of the body, the right should perform the same number of movements. I am forced to believe that this is not considered of importance by some phys-

ical instructors. If this is so, it shows a weak point in their education and will result in a failure to make the gains expected. If a deformity of the body cannot be corrected by gymnastic exercises, it should at least not be made worse, provided the deformity is not due to any cause which would contraindicate treatment by physical measures, and this, of course, should be decided before beginning any treatment.

Every person should give at least 15 minutes daily to their physical development. After a short time of instruction, the necessary exercises can easily be taken at home. No one, however, should take exercises without first consulting his physician as to the condition of internal organs, and on beginning them proper training is, for some time, desirable, since too violent exercises and exercises improperly taken have serious results, should there be cardiac disease, or may more fully develop any deformity that may be present.

Too violent exercises are just as serious as none, and many athletes have surrendered to heart failure or tuberculosis of the lungs. The explanation is simple. They have gradually trained their organs to perform an unusual amount of work, then when they retire from this field they drop everything as a rule. The muscles of respiration, accustomed to a high degree of work, do not get enough exercise. The circulation becomes sluggish and the tissues of the lungs, accustomed as they are to be overfed and overful, do not get enough nutrition and lose their elasticity. Consequently a degeneration takes place and germs can not be checked. If the athlete, on the contrary, would retire gradually, as he trained gradually, the consequences would not be so serious and the organism would be able to stand the reaction.

Medical exercises are divided into two groups: passive and active movements. The passive movements increase the circulation in lymph and blood vessels and consequently the nutrition, they are applied when we desire to stretch contracted ligaments, muscles and nerves and to improve the mobility of a joint after a period of fixation.

The active movements, however, have the advantage, as soon as they can be applied. These movements increase the circulation, they develop and strengthen atrophied muscles and have also a direct influence on the circulation. Active movements require fuller respiration and consequently the

lung tissues are strengthened. They also have a decided effect on the organs of digestion as they increase the secretion of gastric fluid, stimulate peristaltic movements and hasten the evacuation of waste products, they stimulate the urinary organs, increase the perspiration and activity of the skin and finally, as we can not perform active movements without our own efforts, they stimulate the nerves and nerve centers.

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(From our European Correspondent.)

### Aix-la-Chapelle (Germany)

Really pre-eminent amongst Central Europe Spas, the plentitude and the medicinal efficiency of its mineral waters, and for the skilled applications thereof, Aix-la-Chapelle does not receive from Americans the patronage it decidedly deserves. Mainly, perhaps, that it disdains to "hustle!" Self-satisfied with their prosperous manufactures, and fully confident of the unrivalled merits of its springs, the citizens of this "no mean city" evidently think that it is for the strangers and foreigners, who need relief from maladies, to find out for themselves the sovereign merits of these "Aachen" waters, the salubrious climate and the picturesque situation of their town, the unequalled manipulations of their masseurs and masseuses, their elegant and scientific baths and appliances, and the well-deserved celebrity of their physicians. The good people of Aix-la-Chapelle are contented to wait until the delicate, the invalid, the over-weary, and the convalescent, come of themselves, to find here the solace, the recuperation, and the renewed health these "Aachen" and "Burtschied" springs, hills, and forests can assuredly give.

Lying on the borderland of Prussia, Belgium, and Holland, and on various main-lines of European travel, it is certainly surprising that so few, comparatively, amongst the multitude of American travellers stop at Aix-la-Chapelle. In addition to the values of its waters, and climate, the place deserves more than a passing visit for its antiquities, rich in relics of the Dark and of the Middle Ages, its beautiful location, its numerous healthful and pleasant and unusually convenient excursions, and its excellent hotels at most moderate prices. A visit here can be most comfortably made on economical lines, "to suit all tastes and purses."

Its medicinal springs are many, and overflowing in their abundance. Amongst the diseases for which they are specially useful, may be named gout, rheumatism (articular, chronic, gonorrhoeic), skin maladies (psoriasis, chronic eczemas, acne, prurigo, and urticaria), nervous affections of every nature and origin, dorsal consumption, paralyses, chronic catarrhs, liver and stomachic troubles, and malarias.

For detailed information of a medical nature, those interested can readily obtain reliable data from any of the many able physicians resident there; amongst whom we mention Dr Schuster (Aurelian Strasse) and Dr Carl Schumacher (Theater Strasse) both of whom are conversant with our language, written or spoken.

Printed pamphlets (in English) giving illustrated descriptions of the town, the baths, and the neighborhood, charges for rooms and board, baths, etc., will likewise be promptly sent, free by post, on application to Mr. Dremel (of the "Nuellens," "Kaiserbad," "Neubad" and "Quirinus" Hotels), or to any other of the hotel proprietors at Aix-la-Chapelle (Germany).



# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
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MONTHLY

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## EDITORIAL

### The Manufacturers of Paupers

A story has been current, lately, in the lay press, telling of a poor woman, a petitioner at one of the large dispensaries for medical aid, who, in answering the ordinary questions put to her as to her ability to pay for medical advice, told the clerk that she was utterly unable to meet the burden of medical fees. Without further inquiry into this particular case, she was given a card entitling her to treatment and went for a number of days to that department of the dispensary to which she had been assigned. On a crowded busy day, when the number of patients appealing for relief was larger than usual, this same woman stood in the line waiting her turn to have certain prescriptions filled. As she neared the clerk's window, she put her hand into the pocket of her dress to get her purse in order that she might pay the necessary trifling fee, and as she did so, the crowded waiting-room was startled by the cry, "I have been robbed, I have lost \$90." It is needless to say that there was some excitement among the attendants and those in line, and it is comforting to be told that this woman was politely informed that under the circumstances she could not consistently be given medical services as a charity patient. Thus hath virtue its own reward.

This is but an illustration of the sort of thing which is constantly happening in many of our public dispensaries, and is only one form of abuse of hospital privileges which exist wherever hospitals exist. We have borrowed our heading for this brief note from the series of articles which have lately appeared in the *London Spectator* on the "Manufacturer of Paupers," a series of articles which, though written from the standpoint of English institutions, is not without its application in America.

The last article of this series appeared in the *Spectator* of July 7, and deals with the relationship of the hospitals in their manufacture of paupers in the large cities of England. The evils which have apparently crept into the otherwise admirable British system, are so closely similar to the evils which exist in the United States, that we take this opportunity of quoting at length from the article referred to. The writer begins by telling us that it would be a pleasure to dwell at length upon the admirable and valuable work which is done by our hospitals, how they have not only relieved the sick but have advanced medical science. It is necessary, however, to point out the errors they are making and to show how, by the maladministration of their out-patient department, they are sapping the independence of the people and helping to manufacture paupers. Further, he says, it will no doubt be a painful surprise to many people to learn that the in-and-out-patient departments of the Voluntary Hospitals in London, through the free and part-paid dispensaries, are the real source of evil, inasmuch as they are, to a great extent, wasting energy and material and are the means of pauperizing the recipients. The writer then calls attention to the fact that as long ago as the year 1870, this evil was recognized by a large group of medical men, who asked at that time to have the most flagrant abuses of the free dispensary service corrected. Again in 1874 the question was brought prominently before the public by a letter appearing in the *London Times*, by Sir Charles Trevelyan. We quote this extract from the *Spectator* in full:

"Those who best know the London poor, speak of many painful consequences of these unlimited medical dispensations. Instead of having their attention directed to regular employment, cleanliness and wholesome food as the true remedy for the disease caused by idleness, excess and squalor, the poor are encouraged to seek delusive temporary relief from the habitual use of tonics and cordials which are even obtained by the same persons from more than one place of gratuitous distribution."

What was so true 32 years ago in London applies with equal force in our judgment at the present time in this country.

So serious had become the menace of this evil in the year 1899, that a large signed petition was presented to the House of Lords, asking for the appointment of a select committee to inquire into the financial and general management of medical institutions for the aid of the sick in the Metropolis and to make recommendations. The defects in the administration of medical relief which were singled out for reform by this committee are so significant that we quote them in full:

(1) Promiscuous congregation in the out-patient department of crowds of persons, who, in many instances, are suffering from slight ailments for which skilled hospital treatment is quite unnecessary, is a constant hindrance to medical instruction, increases the discomfort and pain of those who are suffering from severe maladies, and occasions much vexatious and needless waiting.

(2) The indiscriminate admission to the benefits of the hospitals and dispensaries tempts many who could pay for medical relief, to be occasional recipients of charity and by degrees habitual paupers.

(3) The provision of gratuitous medical relief to large numbers of persons, both as in- and out-patients, without inquiry or any special regulation, is, as investigation shows, a serious obstacle to the promotion of Provident Institutions at which medical treatment can be secured by small periodical payments.

(4) Hospitals and Free Dispensaries as at present administered usually offer no special advantage to those artisans and laborers who have an opportunity to make provisions against attacks of sickness, and there is no recognized relation between these hospitals and dispensaries and Provident Institutions.

The writer then adds with regret that these defects are still existing and remain as blots upon our hospital administrations. The means suggested by the select committee in their report made in 1892, was that there should be a central hospital board for London, the object of which would be essentially to maintain a voluntary system to induce cooperation among medical institutions, to act as an advisory committee to the public, and to advise medical institutions and to assist them, if desirable, in carrying out much needed reforms. Such a plan is hardly applicable in America. It shows, however, the importance which this committee felt of arriving at some means of combatting this danger in public semi-charity institutions.

In 1897 the Prince of Wales inaugurated a hospital fund in commemoration of the 60th anniversary of the reign of Queen Victoria. In the organization of this fund the purpose was kept constantly in view of increasing the true charitable work of the



hospital and increasing also the importance of medical education and the advancement of medical science.

We are told that notwithstanding the splendid work accomplished by this fund during the past nine years, that the defects mentioned above still continue. This writer points out that no real endeavor is made except at few hospitals to persuade the poor to belong to Provident Dispensaries, nor is any appreciation shown or preference given to those who can prove that they have been thrifty.

No one, we think, will venture to dispute that this equally threatening danger exists in all American cities, and though in a number of instances attempts have been made, as recently in Cleveland, by organized charity workers to inquire into the circumstances of the individual applicant for aid, we do not believe that as yet any great reform in this direction has been accomplished. It would seem as though much might be done to eliminate this danger in the management of our dispensaries and hospitals and it is to be hoped that some plan can be devised whereby this and other equally menacing evils originating in the gratuitous distribution of medical service can be done away with.

The story with which this editorial opens, indicates the impossibility of determining, at the dispensary, the need of the applicant for gratuitous medical service. A plan has been under consideration in Cleveland, whereby the worthiness of all applicants shall be determined by trained non-medical workers, under the general supervision of an advisory committee, appointed by the boards in charge of the dispensaries. Under this plan all the information at hand, as to the ability of individuals to secure medical service from outside sources, would be at the service of those in whose hands the investigation would rest, and personal house calls would be made by these investigators upon doubtful cases.

The plan involves considerable expense and while all the large dispensaries of Cleveland approved it heartily and promptly, only one felt able to contribute to its maintenance. The regulation of dispensary abuse is important to the medical profession as a whole, and particularly it may be to the younger members of the profession, as well as to the public at large. It may well be questioned whether its importance to the dispensaries themselves is anything like so great as it is to the others mentioned, so why should the burden be placed upon them alone? Owing to the lack of support here indicated the plan proposed is not being put into operation.

## A Recent Monograph Concerning Uric Acid

So great a hold has the so-called uric acid diathesis acquired upon the medical profession generally, that every effort to put it right on this subject should be welcomed and widely noticed. To Haig, more than to any other writer, is the present commonly accepted view of the pathological importance of uric acid due. The latest contribution to this much discussed question is so thorough and exhaustive that we deem it of interest to call attention to its critical analysis and destruction of many of the popular theories as to the potency of uric acid.

In an exhaustive monograph upon the chemistry, pathology and physiology of uric acid, together with a discussion upon the metabolism in gout (Dr Francis H. McCruden, Paul B. Hoeher, New York), has brought together the sum of all the work of value upon this subject and has given us the true facts as they are known at the present time. We cannot attempt in this place a critical review of Dr McCruden's work, much of which, particularly that dealing with the chemistry of uric acid, is of a purely technical character. What is of interest to the professional worker, however, is the fact that by the systematic and logical arrangement of facts throughout this volume, the results of all investigations from the earliest times, down to the most recent and important results of modern research, may be followed step by step. The writer has in but few instances attempted any theoretical explanations, adhering rather to an exact statement of experimental data. No one who reads this work carefully can come to any other conclusion than that Haig's views are wholly unwarranted.

In his work upon uric acid as a factor in the causation of disease, Haig tells us that "uric acid really dominates the function of nutrition and structure of the human body to an extent which has never yet been dreamed of in our philosophy, that in addition to its presence in the structure of a comparatively few fibrous tissues in which it is found after death, it may really direct the development of the life history and final decay and dissolution of every tissue, from the most important nerve centers and the more active glands to the matrix of the nails and the structure of the skin and hair." In the light of modern evidence so clearly presented in this work, nothing could be more absurd than the above assumption.

To the lay worker it is indeed interesting to learn of the great strides which have been made in the laboratory technic, so impor-

tant in the field of physiological chemistry, when accurate results are to be looked for and when they are so important. McCruden calls attention to the fact that only recently has any accurate method been devised by which the acidity of the urine and the alkalinity of the blood can be accurately determined. The work of Hiss and Höber puts an end to many theories concerning uric acid in the blood and urine and to any scientific basis for the alkali therapeutics in gout.

McCruden tells us that there is no reason to believe that we can directly increase or decrease the alkalinity of the blood by the administration of alkalies or acid; that a change in the alkalinity of the blood will not affect the solubility of sodium acid urate and finally that the "potential" alkalinity of the blood and its power of dissolving sodium acid urate are not decreased in gout, so that there is no basis for trying to bring the alkalinity of the blood back to the normal condition, or for attempts to make the blood a better solvent for uric acid. Again on page 257 he tells us that there is no drug which we can use which either decreases the formation of uric acid, furthers its excretion, hastens its further oxidation, or increases its solubility in the blood or tissue fluids.

In explanation of the oft observed clinical fact that alkalies are of benefit in the treatment of gout we are told that their good effect cannot be attributed to the fact that they make the blood a better solvent for uric acid, or to use Haig's terms that they "cause an alkaline tide" that "sweeps out the uric acid." Whenever we find that the alkalies decrease the production of or hasten the oxidation of uric acid, their good action, if there is any, must be attributed to some other influence on the general metabolism. It is indeed comforting to be told the truth in so definite a statement. We have cited but a few illustrations from this extremely interesting and valuable monograph for which the profession are placed under a debt of gratitude to the author and to the three members of the profession who have made his work possible.

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We publish elsewhere in this number of the JOURNAL, a statistical report upon the condition of the eyes of the school children of the East Cleveland schools, together with some comment made by the examining oculist. The results shown in this report by Dr Baker are extremely interesting. Just why the showing made by these children in East Cleveland should be above the average of the Cleveland city schools the report does not make clear, but the inference would be that the children not only live perhaps under better conditions, but that greater attention was paid lighting and position in the schools of East Cleveland.



## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

**Vascular Spasm:** In *Medicine* for June, H. A. Hare calls attention to certain conditions of the circulatory apparatus, not usually sufficiently noticed in the text-books. These cases are, to a certain extent, coincident with the onset of old age, and old age comes to some at 50 and to others at 80. Furthermore, these conditions are peculiarly prone to arise in four pursuits of life, namely in the banker or broker, the ironmaster, the lawyer and the physician. In most of these cases, the vessels, the kidneys and the heart form a triad of morbid change, but in some the heart and kidneys primarily escape, the vascular lesion being the chief change from the normal. He especially discusses those cases in which there is an immoderate degree of arterial tension without any renal lesions, which are demonstrable by the ordinary symptoms or by urinary analysis. We meet with three types of high arterial tension: (1) those in which persistently high tension is a result of arterial spasm, due to prolonged nervous stress combined with certain abuses, as to habits of life, food and drink; (2) those in which tension is high because, in addition to spasm, there is gradually developing, or has already developed, fibroid change in the vessels; (3) cases in which after a prolonged period of high tension, persistent low tension more or less suddenly develops, in which the arteries are relaxed and distended, so that they resemble veins to some degree in their caliber and compressibility. He emphasizes these points in treatment: (1) in cases of high tension due to fibrosis, the nitrites can be of but little value, and the iodids with rest and massage are needful; (2) cases of *very* high tension are usually those in which the heart escapes sufficiently to help maintain the tension; (3) as fibrosis in the peripheral vessels increases, the muscles of the larger vessels undergo hypertrophy, as does that of the heart; (4) it is quite as possible for vascular compensatory hypertrophy to rupture as for the cardiac compensatory hypertrophy to do so; (5) this rupture of vascular hypertrophy often gives the heart a rest and permits it to recover from its fatigue and so life is saved; (6) it is possible if the peripheral fibrosis is arrested for the vessels also to regain their power, and a general improvement to ensue; (7) the cardiac stimulants are not needed in these cases as much as rest, and the skilful use of alteratives and vascular sedatives.

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**Renal Depuratives:** *The New England Medical Monthly and Prescription* for May, refers to the agents used as renal depuratives, as containing, as their active agent, certain well-known alkaline salts or salts of the alkaline metals. Those most commonly employed are the citrates, acetates and bitartrates of sodium potassium or lithium, and they are best administered when stomach digestion is nearly or quite completed. They cause increased excretion of urea, accompanied by a moderate diuresis, and are given for the purpose of increasing the alkalinity of the blood and extravascular fluids, these resulting in the more ready solution of the cast-off waste salts of proteid metabolism.

and excretion by the kidneys of urea, uric acid, etc. Instead of the alkaline salt singly, it may be given with a saline to aid the activity of liver and bowels, and in migraine, asthma, the various rheumatic and neuralgic affections, an alkaline diuretic salt, combined with a saline laxative, will prove satisfactory.

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**Calcium Chlorid:** In *Merck's Archives* (from *British Medical Journal*) for June, G. Arboar Stephens advises in the treatment of chilblains to administer drugs, which alter the character or quality of the blood, especially as regards its exudation properties. The drug which seems to him the most appropriate was calcium chlorid, and he gave it in 10 or 15 grain doses with licorice extract three times a day, and the patients, most of whom were engaged in sedentary occupations, began in two or three days to show remarkable signs of improvement. Some whose chilblains had broken found that these were rapidly healing and others who were expecting them to break were agreeably disappointed to find them gradually subsiding. Several patients remarked that when previously healing, stiffness was felt for some time, but with the calcium chlorid the stiffness disappeared very quickly. In another series of 20 cases in children, some with very bad chilblains in the ulcerating stage, 10 grain doses of calcium chlorid produced decided improvement in three days. Calcium lactate has been found equally efficient. The only unpleasant effect was a sensation of giddiness in two cases. Attention is also called to the fact in the *New York Medical Journal* (from *Le Bulletin Medical*) that Arnold Netter reports that so far no method has been found to prevent the appearance of the urticarial eruption after the injection of a dose of serum. He has found, however, that the use of calcium chlorid in the dose of one gram a day on the day of injection, and for two days following, constituted an efficient prophylactic in a large proportion of the cases. Out of 252 patients who took the remedy as directed, there were only a little over two percent of eruptions, while in 258 cases not receiving it, the eruptions were over 15 percent. The use of calcium chlorid does not in any way impair the action of the diphtheria antitoxin, the mortality in the two groups being nearly the same. The calcium chlorid may be replaced by the lactate which has no taste and is also very soluble.

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**Bromid Poisoning:** In the *Monthly Cyclopaedia of Practical Medicine* for May, M. Allen Starr calls attention to two cases which he had seen in consultation, which seemed to the attending physician to warrant a diagnosis of general paresis, but which were found to be chronic bromid poisoning. As this mistake in diagnosis may easily be made, he calls attention to its possibility. The patients were both fairly healthy men, in active business, who from overwork had become victims of insomnia. One had obtained from a physician a prescription containing 20 grains of bromid of sodium to the dram, and had gradually increased the dose until he took, habitually, 120 grains at night and occasionally repeated the dose during the night; the other used a patent medicine containing 15 grains of bromid of potassium to the dram. This

he was taking in tablespoonful doses several times a day at the time his symptoms were at their height. In both cases there developed, in the course of four months, a gradually increasing hebetude of mind, a progressive failure of memory and an imperfect power of attention; an unusual irritability of temper developed during this time, there was an unsteadiness of gait, a general weakness of the muscles, and both had at times seemed bewildered as to their surroundings. In neither case was there any loss of pupil reflex or of knee-jerk. In both cases the members of the family and the attending physician had failed to recognize the cause of the affection, and had concluded that the mental condition warranted commitment to an asylum. In both cases, constant surveillance by a competent physician with the aid of nurses, prompt elimination of the poison by the skin, kidneys and intestines, and increased nutrition was followed by entire recovery within a month. Two years have since elapsed and the patients have during this time been in perfect health and shown no signs whatever of paresis.

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**Chronic Constipation:** In the *Therapeutic Gazette* for June, H. Richardson asserts that the treatments for chronic constipation are usually palliative rather than curative. Diets are theoretically of greater value, but it is much easier for a doctor to prescribe a diet than for the patient to keep to the required regime. Many apparently insignificant details are effective in certain cases; a strong douche of cold water to the abdomen, or an ether spray, a glass of cold water on rising, preferably with a little common salt or soda bicarbonate, more especially in hypochlorhydia, brown bread, cooked or uncooked fruit, green vegetables, etc., are often successful for a time at least; in his experience however, sooner or later the patient neglects these precautions, and appears again at the office with the same tale of woe. In women who have borne children, and who give the history of having previously been regular, small doses of thyroid will sometimes give regularity. In considering the pathology of evacuation of the bowels it occurred to him that possibly a diminished quantity of bile might be a cause of chronic constipation, and in any case an extra quantity of bile might act as a sufficient stimulant to keep the bowels regular. He therefore prescribed five grains of glycocholate of soda mass with magnesium q. s. as an excipient three times a day, ordering the patient to take them regularly, using a purgative when necessary. After taking the capsules for a week the patient reported that her bowels were moving regularly without purgatives. He has had the same gratifying results in several other cases, and further the bowels remain regular after the discontinuance of the drug. Should a tendency to constipation return a few capsules will restore regularity. One advantage in the use of sodium glycocholate mass is that it is not toxic and is the natural evacuant of the bowels; it is not a purgative, and results can only be expected after two or three weeks trial. It is also a great benefit in malaria and in other diseases in which the liver has become torpid and the complexion of a dirty icteroid hue. On giving the drug a few weeks the complexion clears up. In hepatic colic it is a specific and further by long continued administration he believes it will dissolve gall-stone *in situ*.



**Serum Therapy:** In the *Medical Review of Reviews* for May, Zupinger (*Wiener Klin. Wchshrft.*) recommends the use of Moser's scarlet fever serum in severe cases of this disease. In 10 very severe cases, six recovered and four died. There were five other cases with practically hopeless prognosis and four of these recovered. Finally, there were three cases with an absolutely hopeless prognosis and all of these were cured. It is of great importance to give the injection as early in the disease as possible, preferably in the course of the first three days, before the occurrence of general sepsis, pneumonia, and other complications. The serum was found to be most valuable in cases with well-marked pharyngeal involvement. The effect on local infectious processes in the nose and pharynx was not so striking, although it did exert a favorable influence. In the majority of the cases the injection was followed by a critical fall of temperature, with a subsequent subfebrile or afebrile stage. The general condition improved, and the frequency of pulsation and respiration diminished. With special reference to the quantity of the serum to be injected, 100 to 300 cubic centimeters were administered according to the severity of the case. In several cases with simultaneous diphtheria, the injection was combined with antidiphtheritic serum (2000 to 3000 units). He concluded that Moser's serum in timely application, sufficient dosage, proper strength and suitable cases, is a powerful specific against the toxin of scarlet fever and that it constitutes the only remedy known at the present time as capable of saving life in the most serious cases.

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**Lobar Pneumonia:** E. Russell Zemp, in the *Journal A. M. A.* for May 26, believes that the use of diffusible stimulants in lobar pneumonia, as recommended by Elsner, is a very valuable procedure, although he thinks it unnecessary to give these stimulants as frequently as advised by him. Every one or two hours is often enough; if necessary, the dose may be increased. Diffusible stimulants are best given in the form of mixture of equal parts of Hoffman's anodyne, aromatic spirits of ammonia, spirits of lavender and brandy. A teaspoonful of this may be given as stated well diluted with ice water. This can be kept up as long as indicated. An injection of decinormal salt solution under the skin is of great benefit in all cases of pneumonia. Not only does it strengthen the heart, and tone up the vasomotor system, but it dilutes the toxins, starts up all the secretions and prevents heart clot. Its effect on the skin and kidneys is quite marked and with ordinary precautions it can produce no harm. From eight to 16 ounces may be given at once and the injection repeated from time to time. He strongly condemns nitroglycerin in this disease. It produces all harm and no good. It can not be regarded in any sense as a heart stimulant, but it does most certainly paralyze the pneumogastric and respiratory and vasomotor systems. It also destroys the oxygen-carrying properties of the blood. He states that no one who clearly understands the physiologic action of this drug can be excused from killing a patient with pneumonia by its use. He is fully aware of the fact that some writers advocate its use late in the disease, when the right heart is vainly struggling, and especially in

cases associated with arterial sclerosis, in which it is generally recommended. It is usually advised also to give this drug at intervals of three to six hours, while its effect probably does not last over 30 minutes. Beginning cyanosis calls for respiratory stimulants, the best of which is strychnin. Atropin, though not so good as once believed, is of value, but must not be used carelessly, and caffein as a respiratory stimulant has been highly overrated.

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**Barium Chlorid:** M. R. Camelain, in the *New York Medical Journal* for June 23, reports concerning the therapeutics of barium chlorid, and believes it capable of replacing digitalis without the cumulative danger of the latter, or its irritant effect on the gastrointestinal mucosa; he reports a case which bears out his assertion and quotes DaCosta that it "diminishes and relieves cardiac distress, increasing the tone of the blood-vessels, and producing diuresis; also that it is a remedy that can be taken for a long time without danger of disordering the stomach." In the case reported with dyspnea, pruritus, a regurgitant mitral murmur, an enlarged liver and an irregular frequent pulse, the use of digitalis was followed by poisonous symptoms, and the barium chlorid was substituted. He prescribed five grains of the barium salt to an ounce of water and gave one dram three times a day, and a local application was used on varicose veins from which the patient suffered. After two weeks treatment the pruritus disappeared, and the patient never thought of his distended cutaneous veins. Three weeks later favorable changes in his heart and liver were manifest both to physician and patient. He reports the case as interesting, first because of the cumulative action of the digitalis, and second because of the therapeutic effect of the barium chlorid, serving as a precious auxiliary to an uncompensating heart and showing its good effect in the treatment of varicose veins.

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**Formic Acid:** R. Max Goepp, in *American Medicine* for May, summarizes the indications for the use of the formates, as being given by their stimulating and diuretic properties. Their stimulant action is not confined to the voluntary muscles; sodium formate stimulates the smooth muscular fibers of the stomach and intestines, improving the appetite and aiding digestion, strengthens the muscular coat of the bladder, and increases the contractility of the larynx, so that the voice becomes stronger. Clerment reports excellent results in catarrhal pneumonia with general debility in the aged; Huchard recommends the formates for their stimulating effect in neurasthenia, diabetes, asthenic grip, the adynamia of infectious diseases, during convalescence, and in various forms of anemia. According to Garrigues it is useful in the treatment of tuberculosis for relieving insomnia, and improving the appetite. The dose of sodium formate is from two to four grams (30 to 60 grains) a day, well diluted in a simple watery vehicle. S. Solis Cohen has employed various formate salts, and finds that, in the small doses, he prefers one to four grains thrice daily, the diuretic action is not marked, but that there is a general tonic and stimulant effect. This is

especially noticeable when the drug is used in conjunction with lecithin or glycerophosphates in neurasthenia or neurasthenic states, or in abnormal fatigue from overexertion, mental or physical. It is not well in his experience to continue the drug for a long time, or symptoms of overstimulation with resultant weakness and irritability will develop. It should be given for a week or 10 days, at most a fortnight, and then discontinued or intermitted. After an interval of a fortnight it can be resumed if necessary.

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### The Northern Tri-State Medical Association

The 33rd annual meeting of the Northern Tri-State Medical Association was held at Hotel Victory, Put-in-Bay Island, Ohio July 31-Aug. 1, 1906. The program was as follows:

"The Results of Conservative Operative Measures on the Uterine Adnexæ in over 400 Cases," Dr. Hunter Robb, Cleveland, Ohio. Discussion—Dr. J. H. Carstens, Detroit, Mich.; Dr. I. J. Becknell, Goshen, Ind.

"Spondylitis in Very Young Children and Some Well Chosen Cases of Lateral Curvature of the Spine, Treated With New Mechanical Devices," Dr. John S. Pyle, Toledo, O. Discussion—Dr. Daniel LaFerte, Detroit, Mich.; Dr. L. C. Backus, Fayette, O.

"Hodgkins Disease and Tuberculosis," Dr. L. Park Drayer, Ft. Wayne, Ind. Discussion—Dr. J. A. Weitz, Montpelier, O.; Dr. A. Hathaway, Edon, O.

"The Various Pathological Conditions of the Urethra as Revealed by the Urethroscope," Dr. N. E. Aaronstamm, Detroit, Mich. Discussion—Dr. Budd Van Sweringen, Ft. Wayne, Ind.; Dr. Frank Broughton, Waterloo, Ind.

"Surgical Treatment of Epilepsy," Dr. Hal C. Wyman, Detroit, Mich. Discussion—Dr. Lewis Miller, Toledo, O.; Dr. D. H. Wood, Coldwater, Mich.

"Value of Leucocyte Count in Appendicitis," Dr. Ralph P. Daniels, Toledo, O. Discussion—Dr. William A. Dickey, Toledo, O.; Dr. A. P. Buchman, Ft. Wayne, Ind.

Evening Address—"Surgical Treatment of Diseases of the Stomach," Dr. George Dock, Ann Arbor, Mich.

"Post Operative Reex Ileus," Dr. J. C. Fleming, Elkhart, Ind. Discussion—Dr. T. F. Wood, Angola, Ind.; Dr. J. F. Jenkins, Tecumseh, Mich.

"What Should be the Aim of the Generalist in Eye, Ear, Nose and Throat Work," Dr. Geo. W. Spohn, Elkhart, Ind. Discussion—Dr. Kent K. Wheelock, Ft. Wayne, Ind.; Dr. John North, Toledo, O.

"Surgery in Perforation of Abdominal Viscera," Dr. George M. Todd, Toledo, O. Discussion—Dr. Miles F. Porter, Ft. Wayne, Ind.; Dr. H. D. Wood, Angola, Ind.

"Metatarsalgia," Remarks and Plaster Cast Demonstration, Dr. William E. Blodgett, Detroit, Mich. Discussion—Dr. C. Stoltz, South Bend, Ind.; Dr. Chas. Harrison, Napoleon, O.

"The Treatment of Diabetes Mellitus," Dr. Geo. W. McCaskey,



Ft. Wayne, Ind. Discussion—Dr. L. E. Maire, Detroit, Mich.; Dr. A. F. McVety, Toledo, Ohio.

"Surgical Treatment of Cancer of the Head and Neck," with report of 115 cases, Dr. George W. Crile, Cleveland, O. Discussion—Dr. Maurice I. Rosenthal, Ft. Wayne, Ind.; Dr. C. N. Smith, Toledo, Ohio.

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## Book Reviews

A Reference Handbook of the Diseases of Children. For Students and Practitioners. By Prof. Ferdinand Fröhwald, of Vienna. Edited with additions, by Thompson S. Westcott, M. D., Associate Professor of Diseases of Children in the University of Pennsylvania. Octavo volume of 553 pages, with 176 illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$4.50 net; Half Morocco, \$5.50 net.

This volume is a translation of Dr. Fröhwald's *Kompedium der Kinderkrankheiten*, which has long been well known abroad. The translation follows carefully the original text, such changes only being made as were necessary to adapt the German to the American usages. There is no discussion of theory, the work representing essentially the method employed by the author. The alphabetical arrangement makes it a volume easy of use as a reference work, and as such it will unquestionably win as high a place in this country as has been accorded it in Germany. Every physician and student interested in the speciality of pediatrics will find much that is helpful and suggestive in this volume. In typographical and mechanical make-up the work is all that the publisher's imprint implies.

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The Health-Care of the Baby, a Handbook for Mothers and Nurses, by Louis Fischer, M. D. 12mo, Cloth, 166 pages. 75 cents, net; by mail, 82 cents. Funk & Wagnalls Co., New York and London.

This little volume by Dr. Fischer upon the disorders of infancy, and infant feeding in health and disease, has been written essentially as a guide for the mother and nurse concerning the important details of feeding and infant hygiene.

Instructions are also given for the management of fever and of the simple ailments of childhood, such as every mother ought to know.

Part one is devoted to the hygiene of the infant; part two to infant feeding, and part three to miscellaneous subjects including emergencies. This is an admirable little volume which we are glad to endorse, a volume which the young practitioner will be glad to know about.

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Recent Advances in Physiology and Bio-Chemistry, edited by Leonard Hill, M. B., F. R. S. Contributors, Benjamin Moore, M. A., D. SC., Johnston Professor of Bio-Chemistry in the University of Liverpool. Leonard Hill, M. B., F. R. S., Lecturer on Physiology, the London Hospital. J. J. R. Macleod, M. B., Professor of Physiology, Western Reserve University, Cleveland, U. S. A.; Late Demonstrator of Physiology, the London Hospital. M. S. Pembrey, M. A., M. D., Lecturer on Physiology, Guy's Hospital. A. P. Beddard, M. A., M. D., Assistant Physician, Late Demonstrator of Physiology, Guy's Hos-

pital. With diagrams. New York, Longmans, Green & Co., 91 & 93 Fifth Avenue. London, Edward Arnold. 1906.

It is to be regretted that there are not more works of the type of this volume, edited by Leonard Hill, devoted to the recent advances in physiology and bio-chemistry. There is a distinct place in medical literature for works of this sort, and the profession at large are placed under a lasting debt of gratitude to the five authors who have made this volume possible.

When such a vast amount of technical literature is constantly appearing, much of which must be sifted and then later put aside as valueless, it is absolutely impossible for the ordinary reader to attempt to keep abreast of the advances in all the fields of medical science which are proven of lasting value. While there is much in this volume of a technical nature, yet its arrangement is such that the average reader can get a clear-cut idea of the value of the points brought out and of the recent advances in this special field. No one but a technical worker could attempt a critical review of the subject matter of this volume and perhaps it is just as well for the average reader that the writer cannot make such an attempt. The various authors are well known authorities upon the subjects assigned them and the whole has been edited most successfully by Leonard Hill, lecturer of Physiology at the London Hospital.

A brief resume of the chapter headings will be interesting as illustrating the scope of the work. The first four chapters are by Benjamin Moore, Professor of Bio-Chemistry in the University of Liverpool, who considers first the energy transformation in living matter; second, the chemical transformation in living matter and its products; third, the velocity of reaction and the comparison of enzymes and cells; fourth, the influence of other factors, such as various physical and chemical agencies upon enzymes and living cells. Chapter V is devoted to the summary regarding the theories of catalytic action and the correlation of these theories, while chapter VI is devoted to secretive and glandular mechanisms.

The following six chapters are by Leonard Hill, dealing with the subject of atmosphere, the effect on life of lessened barometric pressure, and the influence of increased atmospheric pressure. These chapters are perhaps of as great clinical interest to the average reader as any in the volume and recite in detail Hill's and Macleod's experiments upon decompression and the treatment of decompression symptoms as also the physiology of mountain and balloon sickness, the metabolism of high altitudes and the metabolism of compressed air. Chapter XI, by the editor, is devoted to the metabolism of fat.

Not the least interesting part of this volume are the chapters devoted to the metabolism of the carbohydrates and of uric acid and the other purin bodies, by J. J. R. MacLeod, Professor of Physiology in the Western Reserve University. Dr. MacLeod perhaps more than any other experimental worker, in this country at least, has done more to dispell the haze which has hung about the physiology of urea and uric acid and the metabolism of the purin bodies, and to make plain to the lay reader

the real truth concerning the formation of uric acid and its true significance. Dr. MacLeod's chapter upon hemolysins and the allied bodies is a wonderfully clear presentation of a subject which has often proved difficult to the ordinary reader.

M. S. Pembrey, Lecturer of Physiology at Guy's Hospital, writes concerning the respiratory exchange and the internal secretions and this part of this volume should be read carefully by every physician. This author's clear statement of the influence of muscular work and the influence of work and of food upon the respiratory exchange is a lucid description of the problems entering into the maintenance of the respiratory exchange.

Chapter XVI by Pembrey deals with the progress which has been made in the study of internal secretions, especially of the thyroid and suprarenal glands.

The concluding chapters in the volume are by A. P. Beddard, Demonstrator of Physiology at Guy's Hospital, and are not less important as the final complement of this work than those chapters which have preceded. Dr. Beddard writes of the production of lymph, upon the mechanism of absorption from the small intestines, the formation of urea and the secretion of urine.

At the conclusion of every chapter, the writer gives an important bibliography of the subject considered. The whole volume is concluded by a complete index. There is no single work treating of the subject considered in this volume, which can be at all compared to it and the work is one which should be in the hands of every physician as well as laboratory worker. It is to be hoped that this volume may be followed by subsequent editions, even though not so voluminous, which will enable the average reader to grasp in the same succinct way the real progress as it is achieved in physiology and the allied sciences.

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Case Teaching in Medicine, A Series of Graduated Exercises in the Differential Diagnosis, Prognosis and Treatment of Actual Cases of Disease, by Richard C. Cabot, A. B., M. D. (Harvard), Instructor in Medicine in the Harvard Medical School and Physician to Out-Patients at the Massachusetts General Hospital. Boston, U. S. A., D. C. Heath & Co., Publishers. 1906.

This work of Dr. Cabot's presents a large and varied number of cases, chosen from the field of clinical medicine, presented as a case history, and followed by a number of important questions bearing upon the case cited, together with a brief resume of the diagnosis, prognosis and treatment.

The selection of cases is an excellent one and the suggestive questions are sufficiently numerous to stimulate the reader in an effort to arrive at a correct diagnosis. The work has been intended as a supplement to clinical teaching, and as such cannot fail to win a high place among the works devoted to physical diagnosis. It is the sort of volume which makes the reader think for himself, and any work which accomplishes this must prove extremely valuable and achieve a large measure of success.



## Books Received

Carrs' Pediatrics. The Practice of Pediatrics by Eminent Authorities. Edited by Walter Lester Carr, M. D., Consulting Physician to the French Hospital; Visiting Physician to the Infants' and Children's Hospital, New York. In one very handsome octavo volume of 1014 pages with 199 engravings and 32 full page plates in colors and monochrome. Lea Brothers & Co.

Progressive Medicine, Vol. 11, June, 1906. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Lea Brothers & Co.

Medical Jurisprudence, Forensic Medicine and Toxicology, by R. A. Witthaus, A. M., M. D., Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo, with the Collaboration of August Becker, Esq; Chas. A. Boston, Esq; Hon. Goodwin Brown; W. H. Bullard, M. D.; G. C. Cameron, M. D.; J. Clifton Edgar, M. D.; Jas. Ewing, M. D.; E. D. Fisher, M. D.; J. C. Johnson, M. D.; Roswell Park, M. D.; J. Parmenter, M. D.; Irving C. Rosse, M. D.; E. V. Stoddard, M. D.; George Woolsey, M. D.; J. H. Woodward, M. D. Second Edition. Volume One. New York, William Wood & Company, 1906.

The Influence of the Mind on the Body, by Dr. Paul Dubois, translated by L. B. Gallatin. 12 mo., cloth, 50 cents net; by mail 54 cents.

Uric Acid, The Chemistry, Physiology, and Pathology of Uric Acid and the Physiologically Important Purin Bodies, with a discussion of the Metabolism in Gout, by Francis H. McCrudden. Paul B. Hoeber, Medical Books, 69 East 59th St., N. Y.

A Compend of Materia Medica, Therapeutics and Prescription Writing with especial reference to the physiological action of drugs, based on the eighth revision of The U. S. Pharmacopoeia, including also many unofficial remedies, by Samuel O. L. Potter, M. D., M. R. C. P., Lond. Formerly Professor of the Principles and Practice of Medicine in the Cooper Medical College of San Francisco; author of "Materia Medica, Pharmacy, and Therapeutics," "Quiz-Compend of Anatomy," "Index of Comparative Therapeutics," and "Speech and its Defects"; late Major and Surgeon of Volunteers, U. S. Army. Seventh Edition, revised and enlarged. P. Blakiston's Son & Co.

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## Medical News

Dr Stephenson, formerly of Ft. Recovery, has recently located in Celina.

S. A. Orwig, of Bellevue, is making a business trip to San Francisco.

L. E. Miley, of Chicago, O., is spending the summer at Central Lake, Mich.

C. C. Sherwood and wife, of Ottawa, have returned from a trip to Michigan.

Dr Benton, of Hamilton, left July 27 for an eight weeks' trip through Europe.

Dr Guiss, of Tiro, who has been taking a post-graduate course in New York, has returned.

George M. Waters, of Columbus, is in Europe, where he will study at Berlin and Vienna.

C. S. Hoover, of Cleveland, who has been in Europe for the last year, has returned to the city.

John Thompson, of Calais, Monroe county, has located in Cambridge, for the practice of medicine.

Dr Dimock, of Chardon, who has been in Kalamazoo, Michigan, for some time, has returned home.

H. D. McCulloch, of Cambridge, is now located in Toronto, Ohio, where he will practice medicine.

Dr Stewart, of Barnesville, who has been taking a medical course in Chicago, has returned home.

J. W. Melick, of Frazeyburg, who has been taking a post graduate course in Chicago for the past several months, has returned.

F. F. Lehman, of Sandusky, who has been in New York the past six weeks, taking a post graduate course, is at home again.

C. M. Harpster and a party of friends, of Toledo, left in the early part of July for Glenwood Springs, Colorado, where they will spend several weeks.

A. D. Shipley and wife, of Mansfield, have returned from an extended trip to Los Angeles, and other western points. They have been away for four months.

W. T. Barger and wife, of Cleveland, are spending a few days at Montreal and the Adirondacks. From there they will visit different points of interest on the New England Coast.

The Athens County Medical Society held its meeting Tuesday afternoon, July 3. District President, S. A. Cunningham, of Marietta, gave a discussion of the "Malignant Diseases of the Uterus."

The Delaware County Medical Society held its regular monthly meeting on Friday evening, July 6, the meeting being well attended. The address of the evening was given by S. W. Fowler, on "Milk and its Uses."

The Canton Medical Society held its 50th regular meeting on Friday, July 13. Following is the program: Paper, "Insomnia," M. C. Foulks, Canton; Report of Cases, Frank Gavin, Franklin Calhoun, Frank DaHinden, Maria Pontius.

The monthly meeting of the Sandusky County Medical Society was held July 5. L. A. Levison, of Toledo, was present and read a paper on "Diabetes." District Councilor J. H. Jacobson, of Toledo, made a few remarks for the good of the society.

J. N. Ally, of Lapwai, Ida., announces that at the next meeting of the North Idaho District Medical Association to be held at Lewiston, Idaho, 120 miles south of Spokane, in October, there will be a number of speakers from Chicago, Denver and the East.

The Huron County Medical Society met on the afternoon of July 12 with a very large attendance, several physicians from cities outside of Norwalk being present. An excellent paper upon "Typhoid Fever" was read by John Phillips, of Lakeside Hospital, Cleveland.

C. P. Thomas, of Spokane, probably holds the record for automobile night runs over unfamiliar territory, having recently covered 96 miles in three hours and a half to a lumber camp north of Spokane. The auto was pressed into service as there was no train for the north country until the following morning.



W. H. Olds has been elected president of St. Luke's hospital staff in Spokane, succeeding E. D. Kimball, whose term expired, the secretary elected being E. C. Northrup. Frank Hinman, of Baltimore, Md., has been appointed to the position of house interne, succeeding John P. Corkery, who will go into practice at Toppenish, Wash.

The twenty-ninth regular session of the Lake County Medical Society was held at 8 p. m. Monday, August 6th, 1906, at the Hospital, Painesville, Ohio. Program: 1—Presentation of Clinical Cases. 2—"Nasal Obstruction," Dr Thomas A. Burke, Cleveland, Ohio. 3—Discussion opened by Drs Merriman and Moore. 4—The Ashtabula Banquet.

Twenty members of the North Idaho District Medical Society attended a surgical clinic at St. Luke's hospital in Spokane recently, when C. P. Thomas, of Spokane, performed eight operations in three hours. Papers were read by A. A. Matthews, E. R. Northrup, A. R. Cunningham and J. R. Neely. J. N. Ally, of Lapwai, Ida., is president of the society, the secretary being J.M. Lyle, of Peck, Ida.

The Ross County Academy of Medicine held a meeting on Tuesday afternoon July 10. A paper of great interest to the profession was read by Dr McKee, of Bainbridge, upon the subject of "Placenta Praevia." The ensuing discussion was led by Drs Brown, Bower, Maxwell and Perrin. Dr McClellan, of Xenia, president of the State Society, will address the local society at its September meeting.

William L. Hall, of Spokane, read a comprehensive paper on "The Treatment of Summer Diseases of Children" at the July meeting of the Whitman County Medical Society at Palouse, and T. J. Marshall, of Pullman, Wash., spoke at length upon the diagnosis of typhoid, being followed by F. E. Whittaker, of Palouse, who discussed the various methods of treatment of typhus. Fifteen physicians were at the banquet which closed the meeting. The September meeting will be held at Oakesdale.

The following program was given at the meeting of the Miami Valley Medical Society in Loveland on Tuesday, July 10. Morning Session: Called to order by W. E. Leever, president; reading of minutes; Case Report by C. Haarlamert, Loveland; Some Remarks on Fraudulent Advertising in Church Papers, B. H. Blair, Lebanon; Case Reports, appointment of committees; a good country dinner at the Waldo Hotel. Afternoon Session: Admission of new members; Treasurer's report; payment of dues; election of officers; business; Case Report, C. J. Spence, Milford; Notes on Practice of Medicine, N. Briggs, Wilmington; Treatment of Summer Diseases of Adults, R. T. Trimble, New Vienna; volunteer papers; Case Reports.

Members of the Columbiana County Medical Society held their monthly meeting in Salem, Tuesday afternoon, July 10, the session being held in the court room at City Hall. There was a good attendance of the members of the medical fraternity from this section of the county, especially from Salem. The opening of the session was delayed owing to the late arrival of George W. Crile, of Cleveland, an eminent surgeon, booked for an address. The afternoon's program also included papers by A. L. Cope, of Winona, and J. B. Talmadge, of Columbiana. Among the physicians present, aside from those residing in Salem, were: S. R. McReady and S. A. Conrad, of Leetonia; S. J. Patterson, of New Waterford; A. L. Cope, of Winona; H. Bookwalter and J. B. Talmadge, of Columbiana; Frank Moore, T. B. Marquis, M. E. Morris and William Moore, of Lisbon; A. R. Van Fossan, of East Palestine; S. K. Crawford, of Indianapolis, Ind., who is visiting in Salem. William Moore, of Lisbon, president of the Society, presided.



# The Cleveland Medical Journal

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## Some Factors in the Surgical Physiology of the Circulation

BY GEORGE CRILE, M. D., CLEVELAND

In making our diagnosis, in estimating the operative risks, in the course of the operation itself, and throughout the after care of our patients, we have constantly to draw upon our knowledge of physiologic laws and factors. A thorough knowledge of normal physiologic action is of course essential, but this alone is not sufficient. Our cases present conditions in which the normal is altered and modified by physiologic changes, and it is through a familiarity with the reaction of the circulatory and nervous mechanisms to these abnormal conditions that we are enabled to foresee and forestall crises, or to meet them successfully when they do occur.

In surgical practice we are concerned chiefly with the integrity of the circulation and I shall mention in brief some of the factors that modify or effect the circulatory system.

*Heart:* As a muscle the heart is probably the most highly organized and performs the most important function of the various muscles of the body. It has a wider range of compensation and certain other characteristics and limitations that are of great importance surgically. In its response to trauma of various kinds it shows marked individuality. A stab or gunshot wound may in one instance cause only temporary alteration in function, while in another immediate death may ensue. Direct manipulation of the heart often has but slight effect, or it may cause inhibition and irregularity to appear at once. Experimental research has shown that the collapse or death following the short rib or so called "solar plexus" blow is in no way connected with the solar plexus, the diaphragm or the splanchnic nerves, but is

due to mechanical inhibition of the heart itself. No drug has as yet been found that will protect the heart against the important alterations in function that result from mechanical manipulation or trauma, neither are these phenomena modified by anesthetics. Therefore, in operations upon or about the heart prevention is the best treatment.

When the heart muscle is damaged or its nutrition impaired by acute infections, anemia, arteriosclerosis, advanced age, or when valvular lesions, fatty degeneration or the "athlete's heart" is present, physiologic research and clinical experience have shown that it is much more susceptible to trauma and mechanical interference than in the normal organ. One would hesitate much more to perform an operation on a senile heart than upon that of a young adult. Acute dilatation and paralysis of the heart presents a phase of surgical physiology that demands special attention. It is established that the output of the heart is dependent upon the blood pressure in the large venous trunks and not directly upon the arterial pressure. An increase in the amount of fluid entering the heart causes an increase in its work in geometric ratio, that is to say, trebling the amount of fluid causes nine times more work, not three times. This together with the fact that the heart is functionally impaired immediately upon the diminution of its own blood supply through the coronary arteries constitutes the most important group of physiologic factors relating to the heart in the operative part of surgical practice.

In an acute hemorrhage when the heart is functionally impaired by a lowered coronary pressure and by blood of poorer quality, if the amount of fluid is suddenly increased, as by a rapid intravenous infusion, the heart's work is increased out of proportion to its vitality, and it may suddenly suffer an acute dilatation and an immediate paralysis ending in death. So also if the intrapulmonary pressure is rapidly increased, as in certain methods of positive ventilation of the lungs in artificial respiration, the right heart may be unable to empty itself, the blood accumulates and the work of the right heart is doubled, trebled or quadrupled in a moment. This would cause a lowering of the nutrition of the cardiac muscle, would diminish its power of contraction, and might cause an immediately fatal dilatation and paralysis. When these crises arise, either from an increased amount of fluid, as by an unwise intravenous infusion, from obstruction of the pulmonary circulation or otherwise, the

removal of the cause is the first consideration. The patient should at once be put in the feet-down inclined posture. This causes the blood to gravitate from the heart into the splanchnic area and large venous trunks of the lower extremities, thereby partially relieving the over-distension of the vessels. Following this, rapid massage of the heart by rhythmic pressure upon the thorax over it, should be done and artificial respiration maintained. In addition, if it can be done quickly enough, extensive venous blood-letting from the jugular vein may be effective. The efficacy of these measures has been well established from both the experimental and clinical standpoints.

In one of my own cases, in the midst of an operation such a crisis arose. An acute dilatation was at once recognized by the extensive venous congestion, lividity and simultaneous collapse of the pulse. It was during an operation on the neck. The jugular vein lay in the field and was at once opened, and there was a gush of venous blood. During the same time vigorous heart massage was carried out. The heart, which had stopped in paralysis, within a few minutes again beat regularly. The operation was completed and the patient recovered.

This plan of treatment may be the means of saving a life in certain anesthesia accidents in which, as shown by Leonard Hill, the heart muscle being impaired by the anesthetic, acute dilatation and paralysis ensues.

Cerebral anemia has so long been regarded in surgical traditions as the one condition to treat that the rational management of the heart has not received the attention its importance deserves. The differential diagnosis between collapse of cerebral origin and the collapse of acute dilatation of the heart must be prompt and accurate, as the best treatment for the one is the worst treatment for the other.

The powerful influence which respiration exerts on the circulation must be borne in mind when performing operations on the thorax. The respiratory pumping action is of first importance in filling the right heart. In certain operations upon the thorax, when the respiration and hence the supply of oxygen is interfered with, it is well to take every precaution to see that the heart receives its normal quota of oxygen to meet the circulatory crises which thoracic operations so often entail.

Before every operation and every anesthesia, one must take as accurate a physiologic stock as possible of the cardiac reserve force. In the presence of any organic lesion or functional disor-



der of the organ the margin for safe operative disturbance is proportionately diminished, and one must be prepared for sudden impairment or collapse. If the physiologic status is accurately determined and the operative effect perfectly controlled, the demand upon the heart may be made to fall within its physiologic margin of safety.

The factors that most greatly disturb the heart are sudden changes in blood pressure or sudden application of trauma or manipulation. In this connection, too, it is well to remember that the heart endures manipulation and trauma of its apex and ventricles much better than of its base, including the auricles and large venous trunks. Operative procedures directed against the heart should be gradually approached, allowing time for compensation and recovery from slight manipulation, and then should become gradually more extensive until the ultimate aim has been reached. In this way the heart is capable of withstanding a surprising amount of trauma and manipulation.

After collapse with sudden cessation of its beat, the heart may respond to proper treatment after a protracted quiescence—even of fifteen minutes. It is during these crises that one is apt so often to fall into the error of administering an over-dose of saline infusion.

In any condition of impaired function or threatened breaks in compensation a preoperative treatment with digitalis or strophanthus with or without nitroglycerine may effectively improve the heart action, and thus increase the margin of physiologic safety.

*Vasomotor System:* The importance of the surgical physiology of the vasomotor system is worthy of a more detailed consideration and study than space will here permit. The height of blood pressure is due primarily to the action of the vasomotor center, which sends its impulses through the vasomotor nerves to the vascular periphery and controls the caliber of the vessels. The rise and fall in the blood pressure depends mainly upon the increase or decrease in the action of this center. The beat then, roughly speaking, energizes the blood stream, supplying artificial force to overcome the peripheral resistance and return the blood to the heart.

While cessation of the heart's action means death, it is no less true that cessation of the activity of the vasomotor center causes death quite as certainly but not so instantaneously. It is highly probable that from the vasomotor center more often than

from the heart arises the causes of surgical death. As a common example may be mentioned the paralysis of the center from operative or accidental trauma, usually designated as shock.

In many of the acute infections a toxic over-stimulation causes a break down in the center, and while it is true that in the majority of cases life is terminated by the combined effect of a number of factors, such as cardiac, renal, respiratory, etc., the vasomotor is probably the dominating factor.

In acute hemorrhage the vasomotor center is depressed on account of its diminished supply of nutrition and of oxygen. The short pulse wave is indicative of the relaxation of the vessels which in turn is caused by a diminished action of the vasomotor center. In a slow, continuous hemorrhage the nutrition of the heart muscle suffers more acutely and this enters later as an important factor in the causation of death.

In asphyxia of any grade the vasomotor center is stimulated, producing a higher blood pressure and a longer pulse wave, characterized clinically by a slow, full pulse. This is often deceptive, giving a false sense of security, so that what sometimes seems to be a marked improvement in the pulse is, when properly interpreted, a grave symptom.

The vasomotor system is the principal means of compensation in all the various circulatory crises occurring in the normal and pathologic state. When the blood pressure is falling in one territory an increased vasomotor action in another may compensate for it; dilatation in the skin area is compensated for by contraction in the splanchnic area and *vice versa*.

The splanchnic area and the brain have a certain and most important interrelation. To this subject Cushing has recently made important contributions. When the intracranial tension is increased, threatening to cause anemia of the vasomotor center, this center sends out strong impulses to the splanchnic area, causing extensive vascular contractions there, which in turn produce a marked rise in the general blood pressure, thus reestablishing the amount of circulation in the vasomotor and other centers required for their normal function. In increased intracranial pressure from hemorrhage, abscess, depressed bone, tumors, and other causes, unless other factors interfere, the general blood pressure usually is increased. The blood pressure which normally is approximately 120 to 135 mm., has been raised in pathologic intracranial pressure to 425 mm. mercury. Thus the action of the vasomotor system may be seen to be one of the strongest

diagnostic features in certain of the common forms of brain injury and disease. We may say that in general a full bounding pulse indicates an increased action, and a soft pulse a diminished action of the vasomotor center.

Recent studies have shown that the vasomotor center is almost specifically affected in certain infectious diseases. Those of greatest interest to the surgeon are the various infections caused by pyogenic organisms. In most cases of acute infection the blood pressure is raised because of a toxic stimulation of the vasomotor center. While this observation is as old as the literature of surgery, it is quite possible that we may now make some new applications in surgical diagnosis and prognosis. In certain other acute diseases, notably in typhoid fever, the toxic products depress the vasomotor centers. In the course of typhoid fever an acute pyogenic infection may, on account of the perforation of the bowel or rupture of an abscess, be introduced. The circulation will then be subjected to antagonistic factors, the one tending to lower the blood pressure, the other to raise it. Since the depressed vasomotor action due to the typhoid toxins is the standard, up to the time of the pyogenic infection, one would expect a rise after such infection. This has been repeatedly noted. In a number of observations in the acute infections, such as peritonitis, the blood pressure is almost uniformly high in the early stages, the mean in adults probably being 150 to 160 mm., while in typhoid observations on 150 cases it is shown to be, on the average, in the first week 104 mm., the third week 98 mm. mercury.

In typhoid the pulse is of large volume, soft and slow, in peritonitis it is of small volume, hard and rapid; in typhoid dirotism is usually present, in peritonitis rarely or never; in typhoid the pulse wave is long, in peritonitis it is short; in typhoid the capillary pulse is frequently present, in peritonitis rarely or never; in typhoid there is usually an increased blood supply—frequently not well oxidized—to the face, the front and sides of the neck, and the upper part of the thorax, giving an almost characteristic pallor.

The principal cause of the antithesis in these two important diseases is the characteristic effect of their toxins upon the vasomotor center. Among the other evidences of typhoid perforation then, the appearance of these circulatory alterations may be of very great assistance in the diagnosis.

In our own experience, in six cases of peritonitis following



typhoid perforation a rise varying from 8 to 40 mm. of mercury was noted, the rise in the blood pressure seeming to occur very soon after the perforation.

In a typhoid ward where blood pressure records are carefully made as a routine, sudden alterations may be of extreme importance in assisting the diagnosis. It must be noted here, however, that the vascular system may be overwhelmed by the dosage of toxins in an acute infection, the blood pressure fall, and immediate collapse follow; furthermore, the shock due to the irritating effect of the toxins upon the peritoneum may also enter as a factor. This, if marked, and if other factors can be excluded, may be quite as important as an increased rise in the blood pressure.

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## Treatment of Typhoid Fever

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There is no subject of greater interest to the practitioner of medicine than the treatment of typhoid fever. This interest comes, on the one hand from the fact that this disease is met with in hospitals, and in private practice, at all seasons of the year, and, on the other hand the course is so prolonged and so many complications may arise, that the physician must always be on his guard to keep his patient comfortable and restore him to health. The treatment which I shall outline is that which has been carried out on 1070 cases of typhoid, admitted to Lakeside Hospital on the services of the visiting physicians: Drs Powell, Lowman, Upson and Cushing. The mortality in these cases was 7.9%.

*Prophylaxis:* Since the sources of infection with the typhoid bacilli are so well known, we should use every precaution to prevent their entrance into the body. The usual source is from a bad water supply. In the city of Cleveland in 1903 there was a severe epidemic of typhoid fever, due to the drinking water being contaminated by the sewage passing out into Lake Erie close to the intake pipe, and 367 cases were treated in our hospital wards. With the building of a new intake pipe farther out into the lake, the disease became less prevalent, and in 1905 we had only 71 cases and quite a number of these came from outside the city. If one suspects that his water supply is infected, it should either be boiled or

filtered before using. One should bear in mind, however, that a poor filter may in itself be a source of great danger. Another source of danger is from milk, if the cans, previous to their use, have been washed with water infected with typhoid bacilli. Raw oysters are often dangerous. Fresh vegetables should always be washed thoroughly with water that has been boiled, as they may be contaminated from the fertilizer used to promote their growth. In a case recently in our wards, that was the only source of infection that we could find. I would like, especially, to emphasize the danger of flies spreading the disease. A fly may light one moment on a typhoid stool, and in another moment be in a glass of milk, directly carrying the infection. The hospital ward or sick room should therefore be well screened.

A typhoid patient himself may readily spread the disease, especially if the proper care is not taken in the disposal of urine and feces. These should be passed into a bed-pan containing a solution of carbolic acid 1-20, and afterwards all solid particles should be broken up and allowed to remain thoroughly covered with the disinfectant for two hours. In hospitals a specially constructed steam sterilizer, connected with the sewer pipe, is preferable for the disinfection of the excreta. The danger from the urine may be greatly lessened by the use of urotropin in convalescence. All bed and personal linen should be carbolized immediately on removal. The patient should be provided with separate dishes, thermometer, and bed-pan. If there are several typhoid patients in a ward, a separate bed-pan for each is very important to avoid the spread of boils, a frequent complication in convalescence. Nurses and orderlies after attending to the patient should thoroughly disinfect their hands, and especially before eating. Where many typhoid patients have to be cared for, this is apt to set up a dermatitis of the hands, a difficulty which may be obviated by wearing loose-fitting rubber gloves. These are used routinely on our medical wards in handling the bed-pans used by typhoid patients, and they absolutely protect the nurse from carrying the infection to other patients or from becoming infected herself.

#### GENERAL MANAGEMENT OF PATIENT

Careful nursing is one of the most essential things in the treatment of typhoid, and in no other disease is attention to details so important. The room should be well ventilated,

its temperature not higher than 65 degrees, and, if possible, in warm weather the patient should be out of doors part of the time during the day. The bed should be high enough to facilitate the easy care of the patient. The mattress should not be too hard. Over it should be placed a rubber sheet, and next a sheet of fine texture, so that it can be kept perfectly smooth. The covering of the patient should be light, a sheet and spread being all that is necessary. If the patient feels very chilly, a blanket may be put on the bed, but this should be removed as soon as he is warmer. One hair pillow is all that should be used. Special attention should be paid to the care of the patient's back. The sheet should be kept perfectly smooth, the patient encouraged to lie on his side a part of the time, and the skin kept clean, especially about the sacral and anal regions. The back should be rubbed twice a day with alcohol and afterwards dusted with talcum powder. If the urine and feces are passed involuntarily, the soiled linen should be removed at once so as to keep the patient as dry as possible. Bowel movements should be passed in the recumbent posture. Where there is careful nursing bed sores are not common. In our series of 1070 cases they were present only in 10 cases and these were patients who had either involuntary micturition and defecation, or in cases of severe hemorrhage, in which the patient had to be disturbed as little as possible. In some, too, the bed sores were present on admission to the hospital.

The care of the mouth is a very important part of typhoid nursing. Where large quantities of water are taken this is an easy matter. Twice daily the nurse should wrap the index finger of her right hand with lint, dip it in the typhoid mouth-wash and scrub the tongue thoroughly, holding it out with the other hand. The cheeks and teeth should also be cleaned thoroughly. The mouth-wash used consists of the juice of two lemons, boracic acid  $\bar{z}$  iv, glycerine  $\bar{z}$  i, water qs. ad Oi. After each feeding the mouth should be sprayed with 10% boracic acid solution. I cannot too strongly recommend the use of the atomizer in cleaning the mouth and throat.

Close attention should be given to the care of the bowels, since the disease shows its most marked manifestation here. They should be kept at rest as much as possible to assist in the healing of the ulcers. Early in the disease an initial cathartic of calomel should be given. If constipation is present,



a soap suds enema should be given every other day. If there is a tendency to fecal impaction, which is not very uncommon in the fourth week of the disease, it is better to give a daily enema of olive oil  $\bar{z}$  iii, glycerine  $\bar{z}$  i. Often in children, and occasionally in adults, a rectal examination is necessary to remove the impacted feces. After the temperature has been normal for four or five days in ordinary cases, or in long protracted cases with slight fever and marked constipation, it is well to substitute a cathartic for the enemata, using either castor oil or compound licorice powder, and afterwards keeping the bowels moving regularly by the use of cascara. Indeed, constipation is the most common cause of rise of temperature during convalescence. Only about 10% of our cases had diarrhoea. This may be treated by bismuth, or by the use of the lead and opium pill. An enema of starch and laudanum is often of great assistance.

Water should be given freely. The routine in the hospital is to give four ounces of water every 15 minutes during the day, and whenever the patient is awake at night. When given freely in this way, and in small quantities, the water produces little or no gastric disturbance, and no discomfort to the patients. We have very little difficulty in getting our patients to take the water, as they soon realize how much more comfortable it makes them. The excretion of urine will reach, on an average, after three or four days, 200 ounces, and in one case 512 ounces for the 24 hours. The urine is clear, of low specific gravity, and is tolerated well by the bladder, for in the last 200 cases retention of urine has occurred only twice. In only one case have the kidneys refused to excrete readily. The temperature is lower, the patient complains less of headache and are less toxic, delirium and sleeplessness being very uncommon. The mouth and tongue are clean, so that such complications as parotitis and otitis media are infrequent. It is very rare that the stomach is disturbed, and distension is not increased. As the patient approaches convalescence water is given at longer intervals or only as the patient desires it. A full consideration of copious water drinking in typhoid is found in an article in the *American Journal of Medical Science*, 1905, by Drs Cushing and Clarke.

The problem of feeding typhoid fever patients is important, as the disease runs a long course and causes great emaciation. The diet should be nutritious, and yet yield very little residue

to irritate the inflamed bowel. Milk is the ideal diet, and the object of giving other liquids with it should be to encourage the patient to take milk better. The latter should be as pure as possible, otherwise it will cause diarrhoea and distension. Our routine is to give six to eight ounces of milk alternating with albumen water. The patient is fed every two hours during the day and every four hours during the night. In some cases in which the stomach is irritable, it is necessary to dilute the milk with lime water or partially peptonize it. If milk is disliked it will be taken more readily if flavored with tea or coffee. Sometimes a good substitute is koumyss or buttermilk. The patient is kept on this diet until convalescence is established. Then we give more freely other liquids as beef broth, cocoa, chicken broth, strained soups (except potato, tomato and bean soups), and often add custard and junket.

The time when soft diet is started depends on the condition of the patient. In cases in which the disease has run a long course, the emaciation is extreme, and the patient hungry, we feed several days before the temperature is normal. We are guided also by the size of the spleen and the condition of the tongue. A spleen steadily decreasing in size, a clean tongue, and a condition of hunger, are all indications for early feeding. In our earlier work in which we delayed feeding until several days after the temperature was normal, we saw more cases with emaciation, more with subnormal temperature, and more with boils, and other complications, due to a condition of lowered vitality. Hemorrhage and perforation do not occur more frequently with earlier feeding. Indeed our statistics show that they are less frequent, although one is not safe in drawing conclusions from the latter alone. We keep our patients on typhoid soft diet No. I for four days. It is as follows:-

1st day—Dinner. A small piece of thoroughly softened milk-toast without crust. Liquids every two hours as before.

2nd day—Breakfast—soft toast. Dinner—soft toast and soft boiled or poached eggs. Liquids every two hours.

3rd day—Breakfast—soft toast and egg. Dinner—soft toast, egg and custard or junket. Supper—soft toast. Liquids every two hours.

4th day—same as third day with the addition of well cooked rice.

Following this we increase the diet to typhoid soft No. II, which is the same as the above diet, with the gradual addition of the following: cereal, crackers, scraped beef, creamed

chicken, bread and butter, and milk pudding. During this time it is very necessary that milk be given between meals and in the evening, so that small amounts of solid food at a feeding will satisfy the patient. In the course of five days, if convalescence is uninterrupted, we give typhoid convalescent diet, which consists of the following:

- 6:30 A. M. Cereal, toast, egg, chop, milk  $\frac{3}{4}$  ii. coffee  $\frac{3}{4}$  iv.
- 9 A. M. Milk  $\frac{3}{4}$  vi. and crackers.
- 11:30 A. M. Chicken, steak, rare roast beef, chop or fish, potatoes, baked custard, bread with crusts, soup and milk.
- 2 P. M. Milk  $\frac{3}{4}$  vi.
- 4:30 P. M. Toast, egg, creamed chicken, stewed fruit, broth and tea.
- 8 P. M. Milk  $\frac{3}{4}$  vi.

The above diets are given merely as a guide. They should be varied to suit the needs of each case.

The efficiency of the bath treatment of typhoid fever has for a long time been universally recognized. Tub baths at 90 degrees should be given every three hours during the day, and every four hours during the night, when the rectal temperature is above 102.5 degrees. The duration of the bath is 15 minutes, and while in it the patient should be rubbed vigorously by two assistants. The head should be supported on a rubber cushion and cloths wrung out of ice water kept constantly applied to the forehead. The temperature is taken before and one half hour after the bath. Since the introduction of the warmer baths, the patients do not fear them, there is less shock, and cyanosis is infrequent after them. If cyanosis does occur and the extremities are cold, relief will follow a hot mustard foot bath, and the administration of half an ounce of whiskey. The drop of temperature is almost as marked with the colder baths, and the general discomfort much less. Intestinal hemorrhage and perforation occur less frequently, because there is less constriction of the peripheral, and, therefore, less congestion of the internal vessels. Often after the temperature is below 102.5 degrees, it is well to give a bath every evening for the general comfort of the patient, and for the quieting effect in producing sleep. The giving of tub baths is contraindicated in the case of phlebitis, intestinal hemorrhage, and in conditions of extreme weakness. If they cannot be conveniently given, a sponge bath at 90 degrees for 15 minutes may be substituted. Most patients prefer the tub to the sponge baths, though good results may be obtained with the latter.



## TREATMENT OF SPECIAL SYMPTOMS

An ordinary uncomplicated case of typhoid fever can be carried through its course without the administration of drugs, but often special symptoms or complications arise, in which they are a great help if not a necessity.

Headache is often very troublesome in the earlier stages of the disease. In the milder forms an ice-cap is all that is necessary. Another great aid is the giving of water freely to assist in the rapid elimination of toxins from the body. If severe and persistent, the tincture of ipecacuanha and opium  $\text{m}\times$ . repeated every half hour for three doses gives great relief. Occasionally the use of a small dose of phenacetin, guarded by caffeine, is very effectual, though it should not be repeated because of its depressant effect. A few cases can be relieved only by a hypodermic injection of morphia.

Vomiting occasionally occurs and is very distressing. If due to any particular article of food, this should be stopped, though it is wise in most cases to stop all food until nausea ceases. The water as a rule does not have to be discontinued, but it should not be given quite so frequently. A hot water bottle, a mustard plaster, or an electric pad to the epigastrium, gives marked relief. Sodium bicarbonate, bismuth subnitrate and dilute hydrocyanic acid are of great assistance. We often prescribe tiny doses of creosote and carbolic acid with good results. After nausea ceases, the return to the ordinary typhoid diet should be gradual, beginning first with peptonized milk, then milk diluted with water, gradually increasing the strength and quantity.

Abdominal distension is a dangerous symptom, not only because of its interference with the free action of the heart and lungs by its pressure upward on the diaphragm, but also because of the increased liability to perforation and intestinal hemorrhage. Mild cases are usually quickly relieved by turpentine stupes to the abdomen and by giving a high enema of magnesium sulphate  $\text{̄}$  ii, glycerine  $\text{̄}$  ii, turpentine  $\text{̄}$  ss, one egg and water to make a pint. In a few cases the most effectual enema consisted of olive oil  $\text{̄}$  iv, turpentine  $\text{̄}$  ss, and emulsion of asafoetida  $\text{qs ad}$   $\text{̄}$  xiv. Turpentine should be tried internally in cases in which the distension persists. Some cases that will not yield to the hot stupes are greatly benefited by the ice coil. The use of the rectal tube we have found of assistance only in a small number of cases. Another good measure is to touch

the abdominal wall lightly with the paquelin cautery. One should not forget, however, that part of the distension may be due to a stomach dilated with gas. In these cases the food should be stopped and sodium bicarbonate gr. xx and spirits of peppermint mxx in one-half a glass of hot water given. This is usually followed by the belching of large quantities of gas. If this does not occur a stomach tube should be passed.

Cholecystitis was present in 12 cases. In mild cases it usually subsides after a few days with the application of an ice-bag. If the gall-bladder becomes greatly distended, or pus accumulates in it, an operation is necessary.

Intestinal hemorrhage occurred in 63 cases of our series or 5.88%. In a hemorrhage of moderate amount the treatment is to keep the patient as quiet as possible, avoiding unnecessary moving in bed, such as turning or assisting himself in any way. The baths, stimulant medicines, food and his regular enemata should be discontinued. Water may still be given in moderate quantities. An ice-bag or, better, an ice coil, should be kept constantly applied to the abdomen. To quiet the patient and to lessen the peristaltic movement of the intestines morphia should be given freely. It has one disadvantage, however, viz., that it may obscure the symptoms of perforation, should it subsequently occur. To increase the coagulability of the blood, calcium chloride gr. xx every three hours is of great assistance. Another aid in this direction is the subcutaneous injection of 2% gelatin solution. In case of severe intestinal hemorrhage, the foot of the bed should be elevated, the heart supported by strychnia and digitalin hypodermically, subcutaneous or intravenous injections of normal saline solution given, as well as by carrying out the measures referred to above. The bowels should not be moved for four days. Then an oil enema should be given and retained for a couple of hours, to be followed at the end of that time by a soap and water enema. One half hour previous to the giving of the latter, m. xv, of the adrenalin chlorid solution (1-1000) should be given, to relax the bowel wall and permit the easier passage of the stool. Sixteen of our cases of hemorrhage were fatal.

Perforation of the intestine was found in 29 of our cases or 2.7%. Medicinal treatment has nothing to offer in these cases. The doctor and the nurse should be on the lookout and every case of typhoid fever complaining of abdominal pain, should be thoroughly examined and watched, so that the

diagnosis can be established early. Operation in these cases saves from 25 to 30% and the earlier the diagnosis is made, the greater the number of cases saved. If the diagnosis is in doubt, I think an exploratory operation under cocaine is justifiable as there is little shock connected with it.

Severe cardiac disturbance is not common in typhoid fever, if the patient is kept flat in bed until 10 days at least after the temperature is normal, and judicious stimulation used if the first sound of the heart loses its booming character. When this is first noticed and the pulse is increasing in rapidity, or is irregular, alcohol in moderate doses or strychnia should be given. For the severer forms of cardiac trouble digitalis should be employed. If rapid stimulation is needed, hypodermic injections of camphor and ether should be used.

Phlebitis occurred in 42 cases or 3.9%. It may occur at any time during the course of the disease. Frequently it appears after the patient has begun to walk, from over-exertion. It usually occurs in the femoral vein of the leg. The limb should be kept at rest and elevated on two pillows, the weight of the bed-clothes being supported by a cradle. An ice bag should be kept constantly applied over the inflamed area. The baths should be discontinued and any undue manipulation of the limbs avoided. If an abscess forms, an incision should be made, the pus evacuated, and drainage established.

Otitis media was present in 31 cases or 2.89%. Though usually accompanied by pain and rise in temperature, its onset, however, may be so insidious, that the first indication is a serous discharge from the ear. It occurs less frequently in cases that take water freely. When diagnosed early a paracentesis of the ear drum should be made as soon as it shows signs of bulging. If this discharge remains serous, the ear should be carefully swabbed out frequently with sterile cotton on a probe, and afterwards protected by pledgets of sterile cotton placed loosely in the external auditory meatus. If the discharge becomes purulent, in addition to this, the ear may be swabbed out with hydrogen peroxid or 50% menthoxol. If the otitis media becomes chronic, the use of a solution of boric acid and alcohol assists greatly in the healing process. Syringing the ear should not be resorted to, unless there is great destruction of the drum and a very abundant discharge.

Bronchitis occurs frequently at the onset of typhoid and sometimes in the later stages. Pneumonia, too, is occasionally observed. These complications as a rule require no special treatment and they do not prohibit the use of tub baths.



Tender toes often are seen in the third and fourth week of the disease. If the bed cloths are tucked in too tightly at the foot of the bed so as to produce pressure on the toes, this complication is more frequently seen. The bed clothes should be supported on a cradle and the toes painted with equal parts of alcohol and iodine. Sometimes menthol and oil of wintergreen ointment gives greater relief than the latter.

Cystitis occurred in nine cases and pyelitis in two cases in our series. Urotropin gr. x three times a day should be used both as a prophylactic and curative measure. We give it routinely during convalescence. As a rule these cases subside readily without any further treatment.

Many minor complications occur during the course of the disease which should be treated on general principles.

At no period of the disease is there such satisfaction to the doctor and nurse as in the period of convalescence, when we see the patient very hungry, gaining one pound per day, and his strength rapidly returning. A second pillow should be given to the patient on the eighth day of normal temperature, and a bed rest on the tenth day. He is given the bed rest one-half hour forenoon and afternoon of the first day, doubling the time on each succeeding day for three days. His pulse should be watched carefully and if it becomes very rapid or irregular or if he feels faint, he should be changed to the recumbent position at once. On the fourteenth day he is given the wheel chair one half hour forenoon and afternoon, doubling the time for three succeeding days. On the eighteenth day walking is allowed, care being taken that the patient walks only a few steps at first, and gradually increasing the distance walked day by day. If the patient walks too freely, phlebitis is apt to occur. This routine should be varied for individual cases. Children should often be allowed up early, otherwise they may develop bed fever. When walking is allowed, care must be taken that the patient wears shoes and not slippers, so as to prevent the development of flat foot, as the ligaments of the plantar arch become much relaxed during the prolonged stay in bed. An iron and strychnin tonic should be given during the convalescence. After leaving the hospital the patient should take a long vacation, as it takes the physical and mental powers a long time to regain their activity. All indigestible food should be avoided. I would emphasize too the importance of examining the lungs frequently during convalescence, as the onset of tuberculosis is often very insidious.

In conclusion I wish to thank Dr Edward F. Cushing for many valuable suggestions in the preparation of this paper.

## The Management of Prolonged First Stages of Labor

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The conditions delaying the progress of the first stage of labor may exist in the pelvis, as some deformity; in the fetus, as an abnormal presentation; or in the uterus itself. In the last named location it may occur as first, a deviation of the cervix from the normal direction, being too far posterior or, rarely, anterior; second, an over distention due to hydramnios or multiple pregnancy; third, rupture of the membranes before the onset of, or early in labor; and fourth, rigidity of the cervix from whatever cause. Uterine inertia will more likely be the result of some of the above causes than itself to be the direct cause of delay.

A full discussion of all phases of this subject is not possible in a paper of this length and must necessarily be limited to those conditions more commonly met with.

After a patient has been suffering for hours with no progress the physician will be confronted not only in his own mind but by the patient and her husband with the question of why there is delay and what can be done to overcome it. At such times our patience and judgment will be thoroughly tested, and happy is he who does not allow anxiety to get away to other work to lead him to adopt rash measures. It is no credit to the profession that some boast that they never wait for such cases but terminate the case by the use of forceps, and I fear we will many of us have to admit that we have sometime or other allowed our wish, instead of sober judgment, to decide the treatment to be used.

The cases reported and treatment described serve as a protest against such ill-timed interference and as suggestions of methods which will give results that will be a credit to our best efforts.

One of the most interesting cases of delayed labor due to abnormal presentation was seen with Dr C—. The patient, age 24, was a primipara and had been in labor about 24 hours when I first saw her. The os was one-third dilated, the cervix soft, and membranes unruptured. The brow was presenting at the brim, the nose and eyes being easily felt. The chin was right posterior. Under anesthesia the head was flexed bringing the occiput down to the left anterior. As the patient was exhausted a hypodermic of strychnin, 1-30 grain, was given and an hour later pains began. The os dilated rapidly and in an hour and a half a live child was delivered normally, with no laceration. Such results could not have been obtained if forceps had been used.

Case 2. The patient, seen with Dr S—, was a primipara aged 38. She had been in labor three days during which time the os had dilated to the size of a quarter. The edges of the cervix were thin. The delay in dilatation was unquestionably due to a marked hydramnios and a rupture of the membranes was advised. This was done and the waters were allowed to drain out slowly. The pains became more regular and severe and in eight hours the patient delivered herself.

Case 3 was a multipara, age 38. Three preceding labors had been difficult, one being a forceps delivery. She had been in labor with severe pains five hours when I was asked to see her by Dr W—, as both patient and husband were becoming insistent that something be done to relieve her at once. Examination showed the os to be one-half dilated and the head movable above the brim, ballottement being very marked. Instrumental delivery was not indicated and a hypodermic of morphin, grain one-fourth, was given to quiet the patient who was very nervous and would not help herself. Chloroform was also given moderately. The water was drained out slowly, about a gallon being removed, and the patient delivered herself in four hours.

Case 4. The patient was a primipara, age 25. The waters broke during the night. There were occasional pains the day following which came regularly by evening. After several hours of pain the os would not admit one finger. Pains became less regular and chloral was given but as it did not quiet the patient much, three-eighths of a grain of morphin was given in the next hour and a half. The patient slept three hours and on waking was given, during the next two hours, three hot douches and three doses of strychnin, each 1-30 of a grain. Pains became hard and regular but at the end of 12 hours the os would admit only one finger. The os was dilated manually to admit two fingers easily. Morphin was used and later followed by strychnin. Six hours later the os was dilated one-fourth. Chloroform was given part of the time but the patient objected to it. The dilatation continued quite rapidly from this time and labor was terminated normally, having lasted 50 hours. The second stage was one hour. The condition of mother and child was good.

Case 5 was a primipara of a very nervous disposition, 30 years of age. After 12 hours of labor the os admitted two fingers and the cervix which had been very rigid was somewhat softer. The patient being exhausted she was given morphin and after a rest of three hours, treatment as described above was used. Several hours of pains followed during which time chloroform was given, the os dilating to one-third. Morphin was repeated and after a rest the pains again became severe, lasting an hour and a half, the os dilating to one-half. Labor had lasted 25 hours, the patient was exhausted and showed very little recuperative power. The pulse and temperature were fair but it seemed best to end the labor because of the patient's general condition. This was



done very easily, the os being dilated manually, the child was alive and there was but little laceration of the perineum and none of the cervix.

Case 6 was a primipara, age 46. The membranes broke two days before labor began. It took 36 hours to dilate the os to three-fourths, during which time the patient was given nearly one grain of morphin followed by the same treatment as above. She became too exhausted to allow her to go longer and under chloroform the dilatation was completed and a living child delivered. There was no tear of the cervix but quite an extensive one of the perineum.

Case 7 I was asked to see to terminate the labor with forceps. The patient had been in labor 48 hours and the os would admit two fingers. The cervix was rigid and the head was at the brim. Chloral had been given with no results. The use of enough morphin was advised to put the patient to sleep. After some rest the pains started again, dilatation was rapidly completed and labor normally terminated.

Case after case might be referred to but no more are needed to show the value of conservative as compared with radical treatment. Instances might be given in which the treatment suggested was not followed, with disastrous results to the mother and death of the child, but this is not necessary.

I have reported no case of delayed labor from pelvic deformity. In such, time must be given for dilatation which is slow because of the lack of pressure from the presenting part, and careful judgment will be required to determine, in many cases, how long to wait and what line of treatment to adopt. The same aids to dilatation should be used as in any case in which it does not take place, either because the obstruction, if one exists, can not be removed, or because, if removed or if it had not been present, the cervix is so rigid that it will not yield. In addition to the rigidity of the cervix, however, the exhaustion of the patient as a result of it must also be treated. Fortunately the remedies to accomplish the one aid the other. There are three of especial value: chloroform, chloral and morphin.

Chloroform is most useful in saving the strength of a patient by diminishing the severity of the pains. It also aids in relaxing the cervix and occasionally the dilatation will be found to be advancing rapidly after its use is begun. It is not as satisfactory as the other remedies because the anesthesia is only partial.

Chloral in 40 grain doses per rectum is efficient in many cases. It is too frequently vomited when given by the stomach. The action when given per rectum is slower and the exact amount the patient retains and absorbs is uncertain. For this reason I do not depend upon it to any great extent.

Morphin in one-fourth grain doses, hypodermically, is in my opinion the most efficient of the three. It can be repeated several times at short intervals till the contractions are quieted. From one to six hours rest will be obtained and during this time there is almost complete relaxation of muscles. Frequently an examination following such rest shows a remarkable increase in dilatation.

After the period of rest the patient should have some liquid nourishment, one or more hypodermics of strychnin, 1-30 of a grain each, according to the strength of the returning pains, and one or more hot douches. These not only stimulate the uterus to contract but help to soften the cervix. Friction of the abdomen over the uterus at regular intervals in imitation of pains frequently starts them and increases their strength. Usually such treatment is all that is necessary. As in some of the cases reported it may be necessary to use the sedatives and then the stimulants a second or even a third time. If the os still does not dilate, slight dilatation with the fingers will often start it. This may be done before instead of after the use of sedatives but whenever done should be used carefully and with thorough antiseptic precautions, for the dangers of infection are increased by such measures.

Ergot should not be used and quinin has never seemed very effectual. Applications of various remedies to the cervix are of doubtful value.

During these efforts to dilate the os the condition of the mother and child must not be forgotten. The mother's temperature and the heart of each must be carefully watched. If there is a rising temperature or signs of a failing heart we must interfere in the interest of the life of either patient. Usually this will not be necessary. Occasionally there will be cases in which no efforts to secure complete dilatation are effectual. Our only recourse will be manual dilatation and forceps delivery, but the patient will be less likely to suffer ill effects from such operation than if the treatment suggested had not been used.

In all obstetrical work it pays to explain to the husband at least why delay, whatever the trouble may be, exists and he will not be so inclined to object to what seems to him a needless delay and suffering. On our part we will not be so apt to use methods which are contrary to our best judgment, and though the case may be slower, the results will be better, and that is what we are working for.

## Report of an Infant, Four Weeks Old, with Several Thousand Convulsions

A. F. FURRER, M. D., CLEVELAND

Convulsions in infants may be due to a variety of causes, among which may be mentioned: (1) gastro enteritis, (2) peripheral irritation—for example, otitis, phymosis, (3) rickets, (4) toxemia, noticably in the onset of acute infectious diseases, (5) congestion of the brain, seen during paroxysm of whooping cough, (6) nervous diseases, including brain tumors and hemorrhage, (7) finally, there is a group of cases in which no cause can yet be given. It is perhaps in this last group that this case belongs, the history of which follows:

Baby L. M., four weeks old, admitted to the Lakeside Hospital May 25, 1906. This infant appeared to be perfectly well until the fourth day after birth, since which time there have been general convulsions coming on about every five minutes day and night. Otherwise, the baby appears perfectly well, taking the breast satisfactorily, bowels regular; denies supplementary feedings except water.

As far as could be ascertained (conversation had to be largely through an interpreter of somewhat doubtful intelligence) the labor was an early, noninstrumental one and the baby appeared healthy until the fourth day. The father was said to be strong and well and the mother appeared to be in good health, but it was found impracticable to go further into maternal or paternal history as regards recent state of health, previous history, or habits past and present.

*Physical examination:* Well developed and nourished infant of average size, apparently the picture of health. Pulse 120 and regular, rectal temperature 101°. With the exception of some edema about the testicles and scrotum, the physical examination was negative. While the infant was under observation, which lasted nearly an hour, several convulsions occurred. They were general in character, slight to moderate in severity and lasted from one to two minutes.

The baby was seen in consultation by J. J. Thomas and R. H. Birge and cerebral hemorrhage considered. No constant localizing symptoms were noticed during the convulsions, and nothing abnormal about the anterior fontanelle.

*Treatment:* It seemed wise to clear out the bowels on "general principles" although the baby was said to be breast nursed exclusively and the bowel motions, as far as could be ascertained, were normal. Therefore, castor oil, ʒi, was advised, also a soap suppository. Sodium bromid, one grain every eight hours, unguentum hydragryi under the abdominal binder daily.

Two days later the mother returned, reporting that convulsions were not as frequent, occurring about once every half hour. It seemed to us at this time that they were somewhat diminished in force as well. On learning that the stools were slimy (?) and green, though perhaps not over frequent, calomel in divided doses



was given. The sodium bromid was increased to one grain, every three hours. Not hearing from the mother for a month, I looked her up, and somewhat to my surprise was told that the baby was "well," no more convulsions having occurred for a month. The baby looked well and had grown perceptibly. As far as could be learned the infant received the sodium bromid and mercurial ointment for about a week and the convulsions appeared to be partially controlled by the one grain of bromid every eight hours, and shortly after increasing the frequency of this dose the convulsions ceased. All medication was stopped within a week from the time it was started.

In the past two months I have seen the infant twice, once on account of a slight return of the enteritis (?) and once when the mother came simply to report. I find that the baby has steadily grown in size and weight and appears to be perfectly healthy. There is still some swelling of the testicles and scrotum.

In conclusion the only explanation I can offer of the effect of the bromid of sodium, in this case, is that the cause of the cerebral irritation, toxic, traumatic or whatever it was, may have only lasted a few days at the most, but that the motor areas of the brain *remained* abnormally irritable even after the irritant had disappeared. The administration of the bromid reducing the abnormal irritation of the motor centers, the convulsions ceased. Possibly the infant would have gotten well anyway in time, or the stopping of the convulsions shortly after the treatment was instituted was but a coincidence. Syphilis, it seems to me, can be ruled out by the general improvement in the infant's condition with noticable gain in weight in the absence of a persistent antispasmodic treatment.

Not the least interesting thing in this interesting case is that an infant, one month old, weighing about eight pounds, should have sustained probably over four thousand general convulsions, and this is calculating that the convulsions occurred only half as frequently as was stated, and should be to all appearances well developed and nourished and in the best of health.

*Prognosis:* The ultimate prognosis must be somewhat guarded, at least for several months or a year, inasmuch as we are very much in the dark as regards the nature and amount of actual cerebral damage that may have occurred, and the presence of which, at the present, cannot be ruled out.

I am very much indebted to E. F. Cushing for permission to report this case as well as for his kindly suggestions and criticisms.

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## Report of a Case of Malignant Endocarditis

GEO. SEELEY SMITH, A. M., M. D.

Louis M., 11 years of age, was seen on the evening of March 3, 1906. For several days he had been somewhat below par, experiencing nothing more serious, however, than a general feeling of malaise, and slight dyspnea upon exertion.

Late on the afternoon in question he was suddenly taken with a severe chill, which lasted some 15 or 20 minutes, and left him profoundly prostrated and suffering from marked dyspnea, orthopnea, palpitation, and a short hacking cough. It was impossible to assume the prone position and he remained propped up by pillows for over three weeks.

The boy had a severe attack of scarlet-fever six years previous, and convalescence had barely become established before the onset of acute articular rheumatism. This confined him to the bed for 10 weeks, and involved nearly all of the articulations. Complete recovery was made, so far as is known, and he was in robust health until two years ago, when a second attack of rheumatism appeared. This, fortunately, proved to be light and he was not confined to bed for more than three weeks. It was during this time that the attending physician discovered a mitral leakage with enlargement of the heart, a condition which has persisted ever since.

Nevertheless the restoration to health and strength was rapid, and cardiac compensation remained good. During the summer of 1905 the patient worked as a caddy at the Euclid Club, without suffering the slightest disturbance.

Present condition: Heart enlarged both to the left and right; apex in the fifth interspace, one inch to left of mamillary line. Cardiac impulse strong and diffuse. A loud, harsh, systolic souffle heard best at apex and extending to left as far as the angle of the left scapula. Second pulmonic sound distinctly accentuated. Aortic sounds clear. Temperature 104 degrees; pulse 160; respiration 60. Respiratory murmur diminished over left chest, and evidences of pulmonary edema on that side. Examination otherwise negative. Liver and spleen not enlarged and urine normal.

Blood examination, made in the beginning, and again at the end of three weeks, gave no Widal reaction, and no evidences of malaria, but showed a decided polynuclear leukocytosis. A careful inspection failed to reveal any abrasion through which septic infection might have entered, although the tonsils were enlarged, porous, and slightly congested. No soreness of the throat existed.

The case appeared to be one of severe recurrent endocarditis, and its subsequent course failed to develop a more plausible diagnosis.

Two days from the onset of the attack a second chill was experienced, less severe than the first but lasting about the same length of time. The temperature reached 104 degrees only during the first 24 hours. After that, and until March 17, it ranged from 102 degrees to 103.6 degrees, usually higher at night. For the following 10 days it maintained a somewhat lower level, of from 99.6 to 100.2. On March 28, the temperature became normal, morning and evening, and no rise was again observed. The respirations were rapid

throughout—from 35 to 60—and so remained until the establishment of convalescence. The pulse meantime varied from 82 to 128, except for the first few days, when the rate was very much higher. In the beginning it was very irregular, some of the beats not reaching the wrist, but under strychnia, brandy and digitalis, it distinctly improved and in 10 days became regular. On April 7, the respirations were 20, pulse 100, of good quality, the temperature normal, and recovery rapidly ensued.

The case presented no serious complications. Edema of the lungs persisted for several weeks, and during that time edema of the scrotum was a troublesome symptom. The extremities, however, were not affected nor was there evidence of fluid in the peritoneal cavity. On March 10, the right wrist became painful and slightly swollen, but subsided quickly and completely in 24 hours. Two days later the right ankle was similarly involved, but this condition likewise disappeared in one day. These were the only evidences of a possible rheumatic infection. There was considerable pain in the vicinity of the heart during the first few days, or at the time the pulse rate was so very rapid. Also, during this period, complaint was made of subjective dyspnea. This disappeared in 24 hours, suggesting a toxic anesthesia, as the respirations were still labored and from 40 to 50 a minute. Sweating was a troublesome symptom throughout. Delirium of a mild character occurred on two or three days only. The urine at no time contained albumen. It was passed in large quantities and for the first three weeks was loaded with urates. No signs of embolism and no ecchymotic eruption appeared.

In cases such as the above, in which an acute endocarditis is grafted upon a pre-existing chronic process, a diagnosis is to be approached with reserve, as the conditions which might occasion a rise of temperature with its accompanying phenomena are many. The persistent leukocytosis, together with the absence of the Widal reaction, made typhoid most improbable. The blood examination ruled out malaria, and the subsequent course of the case without evidence of cerebral, pulmonary, or other tuberculous lesions, rendered tuberculosis a negative factor.

It seems justifiable to call the case one of severe acute endocarditis, probably of the malignant type. At the same time it is recognized that the line between benign and malignant endocarditis, as seen clinically, can not be sharply defined. To attempt to do so would be practically impossible if not theoretically absurd. The same varieties of micrococci are found associated with both forms of the disease, the varying degrees of specific virulence, together with the resisting qualities of the patient, probably determining the pathological and clinical course.



# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
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MONTHLY

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## EDITORIAL

### Tuberculosis Exhibit

As an important feature of the warfare against tuberculosis, there will be held in Cleveland, September 17 to 26, a free exhibition designed to familiarize the general public with the nature of the disease and its treatment.

This exhibition is arranged under the auspices of the National Society for the Prevention and Cure of Tuberculosis and will be brought to Cleveland by that body and the Anti-Tuberculosis League of Cleveland acting in conjunction with the representative civic, sociological and charitable organizations of the city. Dr John H. Lowman is the president of the organization that has been effected for the management of the exhibition.

The display will show by charts, statistics and otherwise, the prevalence of consumption and the ease with which it is disseminated by carelessness, and there will also be exhibits to illustrate the simplicity of the methods required for the prevention and cure of the disease. Numerous lectures will be given by well known authorities and there will be frequent demonstrations during each day of the exhibition.

The exhibition will be open from 9 a. m. to 9 p. m. daily and on Sundays from 2 to 5 p. m. It will be held in the new building at 1101 to 1109 Euclid Avenue, between Erie and Muirson streets.

Admission will be free and the public is not only invited but urged to attend.

The co-operation of the laity in the battle against this terrible scourge is imperative. Without a proper understanding, on their part, of the dangers and means of infection and the methods of prevention and treatment, the instructions of the physician, no matter how explicitly given, are apt to be disregarded. Tuberculosis is theoretically a preventable disease and it is a serious reflection upon our boasted medical progress that the death rate from it should be so appalling. Much can be done in diminishing its ravages by the proper care of tuberculous patients, more especially in the hygienic observances of their daily life. The idea that a change of climate is absolutely essential is no longer held, and while undoubtedly it is very often of great assistance in the treatment of the disease the majority of early cases could be cured by proper treatment at the patient's own home. This is a most important fact when we consider that the disease is so frequently found among the poor, who would be utterly unable to bear the expense of a change of climate. Not only should every medical man, by his personal attendance at this exhibit, show his approval of this effort to educate the people in the campaign against tuberculosis, but he should urge as many as possible of his patients to see it for themselves, more especially the members of those families in which the disease exists.

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### The Preparation of Nostrums

An article in the *American Journal of Clinical Medicine* for September draws attention to the fact that many of the quack remedies on the market are manufactured by some of our leading pharmaceutical houses, whose reputable ethical standing is supposed to be well established. If such be the case, and the evidence seems to be pretty conclusive, it is high time that an effort should be made to dissuade the manufacturing firms from supplying the infamous concerns with their ready made nostrums. It will probably be a difficult matter to do this, the profits to the manufacturing pharmacist from this source must be very large and if he relinquishes it the act must be a purely voluntary one upon his part as he is duly within his legal rights in supplying them; only his desire to maintain his good standing with the medical profession will impel him to sacrifice this remunerative business, but it is hoped that when the matter is duly brought to his attention, in each case the practice will be discontinued.

## The Medical Library

During the past few months work upon the addition to the Medical Library has progressed very satisfactorily. The new stacks having been finished, it was deemed advisable to close the Library for a short period in order to transfer the books to the new shelves. This will allow the transformation of the rooms formerly occupied by them into the comfortable furnished quarters which will permit the Library's being used more as a club than has been possible in the past. It is the intention to have a formal opening of the new auditorium in the near future, to which some prominent out of town visitors will probably be invited. The committee having the work in hand are still in need of some additional funds and it is earnestly hoped that the members of the profession who have not yet contributed toward this object will do so at once. The Library is a most valuable possession to the medical men of Cleveland and every effort should be made to maintain its efficacy.

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## Department of Therapeutics

CONDUCTED BY J. B. MCGEE, M. D.

Peritonitis : Henry W. Berg, in the *Medical Record* for June 30, treats of what surgery has left to medicine in the treatment of peritonitis. As to nonsurgical types of peritonitis, and their treatment by serum therapy, he thinks that we have no reason logically to expect that any of the bacteriologic sera have much curative power. He has, however, used antistreptococcus serum in the treatment of general peritonitis, of the puerperal variety, and has seen cases recover, although he rather thinks they would have recovered from the other means instituted as well. As far as the other two bacteriologic types of acute peritonitis are concerned, the coli and the pneumococcus type, he knows of no cases having been treated by serum therapy. As to the purely medical treatment of peritonitis, the first thing in a given case is the diagnosis and having determined that the case is a proper one for medical treatment, the prime necessity is to relieve the pain. For this he gives hypodermically enough morphin to control the pain, and no more. He feels that the opium treatment as pushed to the extreme, has no place in the modern therapy of peritonitis. Nevertheless, the intestines must be kept quiet, for increased peristalsis, due to catharsis, spreads the pathologic process through the unaffected areas of peritoneum, breaks up adhesions and does infinite harm: so that cathartics except in the first and incipient stage of peritonitis are contraindicated. He has, however, found decided improvement from a brisk cathartic in the threatening peritonitis complicating any ileocolitis, in the incidence of a pelvic peritonitis and sometimes of a puerperal peritonitis. Such



measures, however, are to be used only at the very beginning of the peritonitis. In cases of peritonitis, which he believes to be rheumatic in their origin, and also in other cases of acute general nonsuppurative peritonitis, in adults and children, he has used for the past few years, rectal injections of sodium salicylate, in adults one dram in a half pint of water once a day, injected high up in the rectum. In children a year old, three to five grains, in one ounce of water, and he has seen cases of this type improve remarkably under these injections. As regards the general septicemia and toxemia, while he is not very enthusiastic as to the value of the unguentum Crede, he is quite so as to hypodermoclysis with the physiologic salt solution and especially when it complicates the infectious diseases, as scarlet fever, pneumonia, etc. Patients with peritonitis should have, of course, absolute rest in bed and be kept on a fluid diet. He believes the icebag absolutely contraindicated on account of its weight and bulkiness.

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**Syphilis :** In the *Therapeutic Gazette* for June, Jonathan Hutchinson almost unqualifiedly condemns the intramuscular injections of insoluble mercury as not only troublesome and expensive, but very dangerous unless used only by experts. Uncontrollable salivation is apt to result and the only possible way of counteracting the drug is to excise the part of the muscle into which it has been injected. Several deaths have been recorded from these intramuscular injections, and he protests against the introduction of such injections as the routine method of treatment. The most useful treatment for general use he considers to be the continuous administration of small doses of mercury as gray powder for a long time, and he believes continuous treatment much better than interrupted courses. He believes that treatment should be begun as early as possible; any chancre is sufficiently characteristic to justify the immediate commencement of mercurial treatment.

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**Tabes :** In the *New York Medical Journal* for July 7, A. D. Young states that it is a notorious medical fact that the more intractable the disease, the longer the list of drugs recommended and vouched for by various observers. This is true of tabes, but suffice it to say that as a cure all of them are failures. However, in a disease so steadily progressive and the primary lesion of which is a neuronie degeneration, a temporary cessation is a result of which to be proud; although this sometimes occurs without treatment. Antisyphilitic treatment in his opinion should be confined to those cases showing tabetic symptoms within two years of the primary lesion, and accompanied by other manifestations of syphilis outside the nervous system. The treatment is the same as in other luetic conditions, and should be boldly exhibited. If possible the mercury should be given by inunction and the iodid increased as rapidly as possible. In cases not plainly specific the disease is beyond the reach of specific treatment, and the mercury and iodid may do much harm. One of the most important factors in the care of the tabetic is rest, while the tepid bath is grateful, is

symptomatically useful and can do no harm. The largest opportunity for the use of drugs in treatment of locomotor ataxia is in the management of its special symptoms. For the relief of the lancinating pains nothing answers so well as morphin, yet it should be withheld as long as possible that the danger of a drug habit may be avoided. Many ataxics live several years and to add the morphin habit to their other troubles is unjust, other remedies that may be tried are the coal-tar products, the salicylates, methylene blue, and the bromids. All of them at times will prove disappointing, yet they should be given a thorough trial before recourse is had to morphin. For the laryngeal crises, the local application of cocain affords relief while the bladder and rectal symptoms may be overcome by the use of suppositories containing iodoform, belladonna and opium.

**Tannalbin :** In *Mercks Archives* for July, Arsoz Alfaro summarizes the indications for tannalbin as in children: (a) In subacute or chronic enteritis and enterocolitis. Infants whether breast-fed or otherwise nourished, showed rapid improvement, diarrhoea disappearing promptly under the influence of tannalbin, and proper dietary regimes. (b) In acute enteritis and gastroenteritis, when, after the first few days by bland diet, vomiting has completely disappeared and the fever nearly so. Fever is no contraindication, if the diarrhoea continues, provided the intestine has previously been cleared by a purge. (c) Tuberculous enteritis is as a rule rapidly and favorably modified by tannalbin, though at times bismuth and its derivatives may give better results. (d) Colicky diarrhoea in the presence of dyscrasia, amyloid degenerations, chronic cirrhosis and nephritis. If the urinary secretions be entirely satisfactory, then chronic enteritis and diarrhoea may require astringent medication. Chronic infantile enteritis offers one of the most important therapeutic problems in pediatric practice, not only on account of its frequency but also by reason of the persistency with which it resists treatment and because so frequently fatal. In these cases tannalbin, if used in appropriate doses, is an excellent remedy, well tolerated, producing safe and rapid results. The administration of tannalbin is very simple; it can be prescribed in powder in small doses, given in a little sugar water, or five grain chocolate tablets. He is in the habit of giving it one and one-half to two hours after meals, and the cases at the outset are children less than one year, three grains, three or four times a day; from one to three years old, five to six grains, three or four times a day; over three years old, six to eight grains, three or four times a day. These doses should be reduced as the desired effect is produced, although the medication may be continued for a long time with no inconvenience.

**Water:** Hubert Richardson, in *American Medicine* for June, states that in all cases in which the elimination of urine is below 600 cubic centimeters in 24 hours an increased ingestion of water is needed. There are certain diseases in which the amount of fluid ingested should be curtailed to the minimum quantity compatible with perfect metabolism and elim-

ination. When the reduction of liquids is carried too far, the appetite may be lost completely; there is a loss of flesh over and above that due to starvation, but little or no loss of fat. The loss of fat that occurs in the obese undergoing thirst cures is the result of loss of appetite, and not of the reduced fluid: a decreased volume of blood reduces the amount of fluid in circulation, at the same time decreasing the work upon the heart: the body weight is reduced by dehydration of the tissues. Gastric dilation, notwithstanding the arguments of Albu, is distinctly benefited by restriction of fluids. As no water is absorbed by the walls of the stomach, the food acts as a dead weight whenever it cannot readily pass through the pylorus: a dry diet will therefore spare the dilated organ when its muscular tonicity is weak. On the other hand, the drinking of a little alkaline water after meals assists in the movements of the stomach contents, lessening the danger of dilation in pyloric spasm. As the cause of the pyloric spasm is often hyperacidity, the alkali neutralizes the excess of acid, thereby alleviating the spasm. The treatment of cardiovascular disease, by restricted ingestion of fluids, dates back to the middle ages, but was revised by Oertel in 1884. All the water that enters the stomach must pass through the heart before it can reach the emunctories. The objection to the validity of Oertel's claims based on blood examinations have been overruled by clinical experience, which proves that restriction of fluid spares the heart, and is of great importance as a prophylactic, while when disturbances of compensation occur, digitalis becomes a necessity. In renal diseases, both the liquid and the solids in the urine should be reduced to the minimum compatible with physiologic economy.

### Adrenalin:

H. C. Barclay, in *The American Practitioner and News* for July, reports a case of exophthalmic goitre benefited by the use of adrenalin. He

had used the ordinary remedies with but little amelioration of the symptoms and in a severe attack of tachycardia injected five minims of the one to 1000 solution of adrenalin chlorid. The results were rapid, the pulse became slower and the suffocating sensation passed off. In 15 minutes the patient was relieved and comfortable. She was kept under the adrenalin for a couple of months with a subsidence of all the symptoms, and further attendance was not required. After six months rest a slight return took place, the treatment was resumed and improvement followed and still continues.

### Heroin:

Cecil Kent Austin, in the *International Clinics* (Vol. II, Sixteenth Series), calls attention to the risk of forming a habit in the use of heroin.

For several years now physicians have tried to replace morphin by heroin, and at present we see nearly as many cases of the heroin habit as of the morphin habit. Enough cases of heroinomania have now been observed to make it possible to denounce the danger this remedy presents, as well as the mistaken ideas concerning it; and of the intoxication it produces. It is a gross error to say that heroin is not more toxic than codein: it is certainly more toxic than morphin at equal



doses, and nothing is more striking with heroin habit patients than their cyanosis, their deficient hematosiis and their very great prostration. Heroin was first proposed as a substitute in mild cases of the morphin habit, but neither in mild nor severe ones should it ever be used. Not only are such cases not cured thereby, but the patients are exposed to an intoxication more serious than their former one, since the ruin of the system is much more rapid and complete than with morphin. Heroin seems to have a peculiar action on the brain. With morphin people often appear for a long time to be in possession of brilliant intellectual qualities, but the effect of heroin is just the contrary, producing mental torpor. The convalescence after the heroin habit is slower, and is accompanied by a much inferior and less satisfactory reaction than in the case of morphin. The suppression of the drug in a case of heroin habit is not only as difficult as with morphin, but it is far more dangerous. He believes that heroin has no superiority to morphin and has many points of inferiority.

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### Nasal Catarrh:

In the *Medical Council* for August, Ed. Paulding summarizes the treatment of chronic nasal catarrh as, first, spray out the nose well with Dobell's solution, spraying three or four times on each side and having patients blow out well after each spraying; second, then introduce cotton-wrapped probe, wrapped to a soft, fuzzy end, and one and one-half inches long, well saturated with colloid silver solution 20 to 25 percent or even stronger, well up and back into the nostril. Let it stay in five or 10 minutes. There is no pain after you take your hands off it; third, nebulize well with chloretone inhalant. Treat every day for a week, then every other day for a week, then give patient an atomizer and small nebulizer and let him continue treatment for a month with Dobell's and chloretone inhalant, with instructions to report to you if he catches cold. If he catches cold use adrenalin inhalant in nebulizer freely.

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### Tri-State (Alabama, Georgia, Tennessee) Medical Society

The Eighteenth Annual Meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee, will be held at Chattanooga, October 2-4, 1906. Reduced rates have been obtained from all points in Alabama, Georgia, Tennessee, Mississippi, Louisiana and Florida, and an unusually large attendance is assured.

The preliminary program includes an excellent list of papers from leading medical men of the South. Strong pressure will be brought to bear to ultimately convert this organization into a branch of the A. M. A.—the Association of the Southeastern States, and recommendations will be made at this meeting.

Physicians desiring to read papers should send their titles at once to the Secretary, Dr Raymond Wallace, Chattanooga, Tennessee.

## The British Medical Association Meeting

Nine years ago the British Medical Association assembled at Montreal, since which time it has not met on this side of the Atlantic until this year, when it convened at Toronto, August 21-25.

This year's meeting was notable for its large attendance and for the many famous men present. The registration of nearly 2,000 was in part made up of 170 from England, Ireland and Scotland, 20 from far distant colonies and 600 from the United States. The sessions lasted four days. The sections met from 9:30 a. m. till 1.00 p. m. At 2:30 p. m. there was a general meeting in the large new Convocation Hall. From 4:30 till 6 p. m. a garden party. From 8:30 to 9:30 a general meeting, after which there was a reception.

### THE GENERAL MEETING AT THE CONVOCATION HALL

At the first afternoon of the general meeting, the secretary read the names of the delegates and distinguished guests, who were welcomed on the platform by the president. This gave the assembly a good opportunity of seeing and distinguishing these many notable and renowned men of the medical profession, a large number of them were well known medical writers. The retiring president, George Cooper Franklin, of Leicester, England, made a few very business like remarks. The new president, Richard A. Reeve, Dean of the Medical Faculty of the University of Toronto, delivered a very scholarly address. At the general meeting of the evening Walter Spencer A. Griffith, of London, gave an address on the "Teachings of Obstetrics."

At the second afternoon of the general meeting, Sir James Barr, of Liverpool, delivered a lecture on "The Circulation Viewed from the Peripheral Standpoint." The paper dealt with the results of a very long series of experiments wherein the chief point is the determination of the rate of blood flow in the capillaries and its pathologic significance. This observation is made by causing a blanching of a surface by pressure and then, with a stop watch, noting the time necessary for the blood to return when the pressure is removed. These results are considered with those of the blood-pressure. The element of the personal equation in making an accurate determination is such an important factor that results must be subject to considerable variation. However, the pointing out of this semimathematical sign and its relation to cardiac diseases may prove both as valuable and as important as the determination of blood-pressure has proven to be. The paper is highly technical and unless one is both a physicist and mathematician, the entire subject must be accepted as given.

The general address on the second evening was the climax of the entire meeting. Sir Victor Horsley, of London, delivered an oration on the "Technic of Operations on the Central Nervous System," which was one of the most brilliant and masterful addresses of our times. He has developed the technic of brain surgery to such a high degree that the removal of large tumors from the base of the brain seems quite as simple to him as is the every day removal of an appendix to the abdominal surgeon. The modesty with which he presented his advanced ideas caused one to admire him in the same way as one admires William J. Mayor for his unassuming manner. He was very generous in giving full credit to Americans and not

only was the work of Harvey Cushing acknowledged but he quoted twice at length from the researches of Dr Crile on "Shock" and "The Treatment of Shock." A large portion of the paper was devoted to anesthetics and the finer details of their administration and the very important bearing these have upon the success of the operation.

#### THE MEDICAL SECTION

At this year's meeting of the German Medical Association, the subject of Arteriosclerosis was the chief topic. At this meeting of the British Medical Association both the medical and some of the pathologic papers had as their important topic the subject of arteriosclerosis as the closely related subject of blood-pressure. These subjects were discussed by Sir William Broadbent, Professor Clifford Allbutt, of Cambridge, Sir James Barr, Professor Klotz, of Montreal, Professor Aschoff, of Freiburg, Alfred Stengle and W. H. Welch.

#### THE PATHOLOGIC SECTION

The chief subject was the reporting of results from the various Cancer Research Laboratories. Drs Clowers and Gaylord of the Cancer Research Laboratory, of Buffalo, brought in some very telling results. They seemed to be able to show conclusively that a percentage of mice possess a natural immunity against cancer; that with certain cancerous growths as high as 90 per cent of all mice inoculated develop tumors; that in a percentage of mice which have been inoculated and in which positive growth has developed, after a time these malignant growths disappear spontaneously or can be made to disappear; in other words, in mice a spontaneous cure from malignant diseases is possible; that mice, in which a spontaneous cure has taken place, cannot be reinoculated. They seem to be in possession of a considerable amount of evidence which goes to show that mice which have been kept in particular cages develop the same type of malignant growths. This is analogous to the occurrence of so-called cancer houses.

#### THE SURGICAL SECTION

This section was presided over by Sir Hector Clare Cameron, Glasgow. Herbert A. Bruce, of Toronto, read a very clear and concise paper on "Points in Diagnosis and Treatment of Appendicitis." It was left for William J. Mayo to represent the American surgeons at this meeting in a short but highly instructive paper on "The Surgical Treatment of Ulcers of the Duodenum." In this paper he differentiated between ulcers of the stomach and duodenum and practically established ulcer of the duodenum as a new surgical disease. He reported 137 cases operated by means of gastro-jejunostomy, with 127 cures.

The social features were both numerous and elaborate. A garden party by the Lieutenant Governor of Ontario and Mrs. Mortimer Clark and a reception by the Mayor and the City Council at the very beautiful City Hall partook somewhat of the nature of official entertainment, besides there were receptions by the new president, Dr Reeve, and his wife, and two citizens in official life, Mr H. C. Cox and the Hon. E. B. Osler, and others. Excepting for the intense heat, 86-90 degrees, all arrangements were perfect and too much credit can not be given the secretary, F. N. Starr, of Toronto. The general spirit was unusually congenial and the entire meeting was such a success that it not only reflected great credit upon Canada but benefited individually all those who attended.

MYRON METZENBAUM, B. S., M. D.,  
1242 Willson Avenue.



## Mississippi Valley Association

The next meeting of the Mississippi Valley Medical Association will be held at Hot Springs, Arkansas, November 6, 7 and 8, under the presidency of J. H. Carstens, of Detroit, Mich. The annual addresses will be delivered by Frank Parsons Norbury, Jacksonville, Ill., in Medicine, and by Florus F. Lawrence, of Columbus, Ohio, in Surgery.

Dr Norbury has chosen for the subject of his address "Clinical Psychology," and Dr Lawrence will discuss in his address "Surgical Principles and Theories." In addition to these addresses there will be the annual address of the President, Dr Carstens.

A partial list of the papers promised is published herewith. Communications regarding papers should be addressed to the Secretary, Henry E. Tuley, 111 W. Kentucky Street, Louisville Ky.

Elaborate arrangements have been made by the local profession of Hot Springs to entertain the visiting doctors and their wives, the meeting being held at one of the largest hotels, which will be specially opened in advance of the season to accommodate the Association. A cordial invitation is extended to every physician in the Valley to attend this meeting for which a large number of interesting and valuable papers have been promised.

## PRELIMINARY PROGRAM

Charles E. Barnett, Fort Wayne, Ind.—Operative Necessities for Cure in Tuberculous Orchitis.

J. H. Barnett, Pikeville, Tenn.—Gall-Stones; Reports of Two Cases.

John M. Batten, Downingtown, Pa.—Strength.

H. M. Beaver, Ocheltree, Kan.—Tuberculosis, its Prevention and Treatment as viewed by the Medical Profession and the Laity—A Special Study.

G. G. Buford, Memphis, Tenn.—True Cause of Functional Neuroses.

James B. Bulitt, Louisville, Ky.—Appendicitis, the Imperative and the Alternative.

V. P. Blair, St. Louis, Mo.—Etiology, Pathology, and Operative Treatment of Deformities of the Face and Mouth Due to Mal-relations of the Jaws.

J. B. Bolton, Eureka Springs, Ark.—Some Suggestions of Importance to Organized Medicine.

Geo. F. Butler, Chicago, Ill.—Constipation and its Treatment.

A. H. Cordier, Kansas City, Mo.—Non-Lithogenous Obstruction of Biliary Ducts.

Geo. C. Flippin, Pine Bluff, Ark.—Surgery of the Gall-Bladder.

R. D. Garcin, Richmond, Va.—The Obstetrical Forceps; their Indications and Contraindications.

W. Gavis, Canton, Ohio.—Lithemia.

Frank W. Glenn, Nashville, Tenn.—Prevention and Treatment of Gonorrhea.

Howell B. Gwin, Nashville, Tenn.—Epididymitis in Patient Presenting Three Tests and Double Penis—Showing Patient.

D. M. Hall, Memphis, Tenn.—Report of Case of Acute Toxemia of Pregnancy.

Earl Harlan, Cincinnati, O.—Partial Intestinal Obstruction; Its Causes, Symptoms, and Surgical Treatment.

M. L. Heidingsfeld, Cincinnati, Ohio. Paraffin Prosthesis; Its Histology and other Considerations.

- Marc Ray Hughes, St. Louis, Mo.—Epilepsy.
- C. H. Hughes, St. Louis, Mo.—The Entoning of the Psychic Neurons in Neurotherapy and in General Therapeutics.
- J. E. Johnson, Memphis, Tenn.—Prosthetic Surgery of the Face.
- J. L. McGehee, Memphis, Tenn.—Stones of the Common Bile Duct.
- E. H. Miller, Liberty, Mo.—Masked Typhoid Fever.
- Frank Parsons Norbury, Jacksonville, Ill.—Clinical Psychology.
- Wm. Porter, St. Louis, Mo.—Tuberculosis; A Personal Appeal.
- H. A. Rodebaugh, Columbus, Ohio—An Explanation of the Formation of Drug Habits.
- H. J. Scherck, St. Louis, Mo.—Bladder Surgery.
- John N. Sluss, Indianapolis, Ind.—The Diagnosis and Treatment of Brain Traumatisms.
- F. D. Smythe, Memphis, Tenn.—Volvulus of the Omentum, Intra-abdominal.
- W. A. Spitzley, Detroit, Mich.—Reasons for the More General Use of Local Anesthetics and the Methods of Employing Them.
- Sterling B. Taylor, Columbus, Ohio—Hemorrhoids, Post of Treatment.
- Willis Walley, Richton, Miss.—Typhoid Fever, with Treatment.
- Madison J. Walton, Memphis, Tenn.—Report of Cases of Probable Maternal Impressions.
- W. H. Wathen, Louisville, Ky.—Drainage in Surgery of the Gall Bladder and Bile Ducts.
- T. J. Watkins, Chicago, Ill.—Blunt Dissection in Plastic Gynecologic Operations.
- R. W. Webster, Chicago, Ill.—Indications for and Effects of Overfeeding and Underfeeding.
- T. C. Witherspoon, St. Louis, Mo.—Bowel Obstruction.
- C. M. Capps, Knoxville, Tenn.—Foreign Bodies in the Throat, with Report of Cases.
- Wm. Britt Burns, Memphis, Tenn.—Head Injuries.
- Maynard A. Austin, Anderson, Ind.—The Personal Element in Successful Surgery.
- W. W. Robertson, McComb, Miss.—Periostitis, Surgical Treatment.
- Florus F. Lawrence, Columbus, O.—Surgical Principles and Theories.
- C. N. Harrison, Little Rock, Ark.—Modern Medicine.
- I. H. C. Cook, Hattiesburg, Miss.—Typhoid Fever.
- Richard A. Barr, Nashville, Tenn.—Undescended Testicle.
- A. A. McClendon, Marianna, Ark.—Report of Case of Amebic Dysentery: Abscess of Liver and Appendicitis.
- W. A. McKinley, Columbus, O.—Deep Abscesses following Furunculosis.
- M. Goltman, Memphis, Tenn.—Gall Bladder Diseases and Floating Kidney.
- Channing W. Barrett, Chicago, Ill.—A Consideration of Retroversio-flexions in their Relation to Pregnancy.
- Geo. F. Suker, Chicago, Ill.—Clinical Data—Diagnostic—Concerning Ocular Tumors.
- Quitman Kohnke, New Orleans, La.—Yellow Fever and Mosquitoes in New Orleans in 1905.
- E. G. Epler, Fort Smith, Ark.—Specific Treatment of Pulmonary Tuberculosis.
- Geo. Homan, St. Louis, Mo.—The Danger of Dust as a Cause of Tuberculosis.

Wm. Porter, St. Louis, Mo.—The Tuberculosis Question.

C. C. Stephenson, Little Rock, Ark.—Trachoma.

John W. Selman, Greenfield, Ind.—Idiopathic Epilepsy, Its Course, etc.

Alex Weiner, Chicago, Ill.—Modern Treatment of Surgical Tuberculosis.

Hugh T. Patrick, Chicago, Ill.—Remarks on Combined Degeneration of the Spinal Cord.

M. Rosenthal, Cape Girardeau, Mo.—Malaria; Its Bearing on Life Insurance in the Mississippi Valley.

Emory Lanphear, St. Louis, Mo.—Hyoscine-Morphine-Cactin Anesthesia as a Substitute for Ether and Chloroform in Major Surgery.

E. B. Montgomery, Quincy, Ill.—Pubiotomy and Its Relative Indications.

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### Books Received

A Non-Surgical Treatise on Diseases of the Prostrate Gland and Adnexa, by George Whitfield Overall, A. B., M. D., Chicago. Rowe Publishing Company, 1906.

Historic Notes and Canadian Lore, Lecture Memoranda, British Medical Association, Toronto, 1906. Burroughs, Wellcome & Co., London, Eng.

Professional Opinion Adverse to Vaccination, American, Colonial and Continental. W. J. Furnival, 16 Granville Terrace, Stone, Staffordshire, England, 1906.

Professional Opinion Adverse to Vaccination, British. Published at Stone, Staffordshire, by W. J. Furnival, 16 Granville Terrace.

Department of Public Health and Charities, Having the Care, Management, Administration and Supervision of the Charities, Almshouse, Hospital, and all other similar institutions, the control or government of which is intrusted to the city of Philadelphia.

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### Book Reviews

Food and the Principles of Dietetics, by Robert Hutchinson, M. D., Edinburgh, F. R. C. P., Assistant Physician to the London Hospital and to the Hospital for Sick Children, Great Ormond Street. Author of "Lectures on Diseases of Children," "Patent Foods and Patent Medicines," joint-author of "Clinical Methods." With Plates and Diagrams. Revised Edition. New York, William Wood Company, 1906.

In Food and Dietetics, Hutchinson has made a valuable addition to the literature of this subject. The work is now in its second edition, the first having appeared in 1900. He includes the results of recent investigation of American and Continental observers and these are well stated. While most works of this description give the composition of food as purchased, there is here a tendency to give the composition of definite amounts of food as prepared for the table; and this is a valuable feature of the work. The patent and proprietary foods of all varieties receive very discriminating consideration. The author finds many of them valuable and makes clear the objections inherent in the preparation or composition of others. We have been particularly interested in his discussion of the beef preparations, both solid and liquid, and the alcohol content of the latter.

The space devoted to the principles of feeding in disease is a little less in proportion to the remainder of the book than one might



expect, but the advice given is clear and convincing. We feel that it is the advice of experience, and that a diet list has not been included merely because it had appeared in earlier writings on the subject.

The book is of convenient size, well printed and bound; it is supplied with a good table of contents and index. Like so many works of English authors, it is written in a charming style, "as interesting as a novel."

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**Carrs' Pediatrics.** The Practice of Pediatrics by Eminent Authorities. Edited by Walter Lester Carr, M. D., Consulting Physician to the French Hospital; Visiting Physician to the Infants' and Children's Hospital, New York. in one very handsome octavo volume of 1014 pages with 199 engravings and 32 full page plates in colors and monochrome. Cloth, \$6.00, net; leather, \$7.00, net; half morocco, \$8.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1906.

The numerous well known authorities who have contributed to this work have compiled a very valuable treatise upon pediatrics. A great deal of attention has been paid to the most important subject of infant feeding and the modification of cow's milk so as to be suitable for the young infant. The consideration of the acute infectious exanthemata naturally requires detailed description and this part of the subject has been very thoroughly discussed. The other medical diseases common to both infants and adults have been fully described, more especially from the standpoint of the pediatricist, the manifestations of many of these ailments as found in children differ so radically from those appearing in adults that a work upon general medicine cannot satisfactorily deal with these peculiarities and it is left for a volume such as this to detail them. The appearance of the work is most attractive, the typographical work is excellent and a large number of very good illustrations, many of which are colored, add greatly to its value.

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**A Compend of Operative Gynecology Based on Lectures in the Course of Operative Gynecology on the Cadaver at the New York Post-Graduate Medical School and Hospital, delivered by William Seaman Bainbridge, M. D., Adjunct Professor of Operative Gynecology on the Cadaver, New York Post-Graduate Medical School and Hospital; Consulting Gynecologist, St. Mary's Hospital, Jamaica, L. I.; Consulting Gynecologist to St. Andrew's Convalescent Hospital, New York, etc. Compiled, with Additional Notes, in Collaboration with Harold D. Meeker, M. D., Instructor in Operative Gynecology on the Cadaver, New York Post-Graduate Medical School and Hospital; Assistant, Department of Gynecology, Vanderbilt Clinic, College of Physicians and Surgeons, New York. 12mo cloth, 76 pages. Price \$1.00 net. The Grafton Press, Publishers, New York City.**

This little book was prepared as a guide to those taking a post-graduate course in operative work upon the cadaver, for which purpose it is no doubt very valuable, but its brevity and lack of illustrations, which are invaluable in making clear the technic of an operation, render it unsuitable for actual work to the practicing physician. Most of the necessary details can be readily found in most text-books of gynecology.

The various operations on the pelvic organs have been well described, the operation for removal of the appendix, for the repair of hernia, for the amputation of the breast, etc., has also been included.

Abdominal Operations. By B. G. A. Moynihan, M. S. (London). F. R. C. S., Senior Assistant Surgeon to Leeds General Infirmary, England. Octave of 695 pages, with 250 original illustrations. Philadelphia and London: W. B. Saunders & Company, 1905. Cloth \$7.00 net.

The author's standing as a surgeon and the value of his previous publications would alone serve to recommend this work. It deals with the operations upon those organs which are strictly abdominal, namely stomach, intestines, spleen, liver and pancreas. The kidneys and bladder being partly extraperitoneal, and usually operated upon by this route, are not included, nor are the female pelvic organs which form a special field of work. Hernia is not discussed. In a book of this size a very thorough description of various operative procedures upon these important organs is possible, those methods which appeal to the author as worthy of trial are given and most of them have been employed in his own work. He believes that the day of mechanical appliances such as the Murphy button is past, and while most useful formerly, they must now give way to simpler methods.

The first section deals with the general considerations of abdominal surgery. This includes the bacteriology of the digestive tract, the preparations for operation and the technic and sequelæ of abdominal operations, the treatment of penetrating wounds of the abdomen, acute and tuberculous peritonitis and visceral prolapse. The remaining sections give in detail the operations upon the various organs mentioned above, the description is elucidated by a large number of excellent illustrations. The work is heartily recommended to all those interested in abdominal surgery.

## Medical News

J. G. Neiffer, of Toledo, is visiting in Atlantic City.

I. H. Robb, of Newark, is visiting in New York City.

Dr Riggel, of Uhrichsville, has returned from his Canadian tour.

Dr Warden, of Berea, has been on a fishing excursion in Michigan.

D. H. Artherholt, of Warren, took a two weeks trip up the Lakes.

G. O. Beery and family, of Lancaster, have returned from a trip to Virginia.

Dewitt Rawson will locate in Huntington for the practice of medicine.

J. A. Howell and family, of McComb, removes to Toledo September 1.

C. J. Marquette and wife, of Ashland, returned home from an eastern trip.

R. D. Jacobs, of Vinton, has gone to Mt. Clemens, Michigan, for his health.

E. Leroy Henes, of Hamilton, has returned after a delightful trip up the Lakes.

E. Persons, wife and son, of Plymouth, have taken a trip up the Lakes to Duluth.

L. L. Jones and wife, of Fairfield, returned home from a week's trip up the lakes.

J. H. McElhinney, of Norwalk, recently took a two weeks trip to Denver, Colorado.

C. M. Hoover, wife and daughter, of Alliance, spent a week at Chautauqua, N. Y.

R. L. McIntosh, of Mt. Vernon, spent a two weeks vacation at Chicago and Detroit.

G. W. Kenson and wife, of Mansfield, are spending several weeks at Old Point Comfort.

O. T. Maynard and wife, of Elyria, are at home again after a six months absence in Europe.

E. A. Terrell, of Findlay, who was threatened with an attack of appendicitis, is much better.

H. Clinton Mabley, of Cleveland, has returned after a three weeks' vacation trip to Cape Cod.

J. R. Hoffman, of Niles, has returned home from a vacation trip to Michigan and other points.

H. H. Shafer and wife, of Alliance, left August 14 for a two weeks' outing at Atlantic City.

R. W. Hale, of Fostoria, took a two weeks vacation trip to Put-in-Bay, Mackinac and other places.

M. Stamm, president of the Fremont Municipal Association, is taking a trip around the world.

Reid Calcott, of East Liverpool, who has been enjoying a two weeks vacation, is at home again.

H. E. Dunn and family, of Warren, made a ten days trip to Conneaut Lake, returning August 28.

F. H. Mason and wife, of Painesville, have gone for a three weeks' visit to Buffalo, N. Y., and Canada.

M. E. Hayes and family, of Youngstown, have gone on an eastern trip which will occupy two or three weeks.

O. McCray and family, of Miamisburg, have returned from a several weeks' visit with relatives in North Dakota.

M. E. Roasberry, of Olivesburg, who has been in New Mexico for the past year, returned home for an indefinite stay.

Dr and Mrs Clapsadel, of Akron, have gone to Oden, Michigan, where they will spend the remainder of the summer.

B. F. Brown, of Hemlock, Perry County, formerly of New Philadelphia, has taken up his residence at Shawnee, Perry County.

H. D. Grier and sons, of Elyria, have gone on an extended trip to Niagara Falls, Toronto, Canada, and the Thousand Islands.

D. J. Price, of Newark, who is taking a post-graduate course in his line of specialty at the New York Polyclinic, returned August 25.

M. O. Phillips and E. M. Ickes are contemplating taking charge of Dr Stamm's hospital at Fremont, during Dr Stamm's absence.

Howard W. Quick, formerly of Middlefield, has recently sold his practice in Jersey and bought a private hospital in Crete, Nebraska.

J. R. McCleary, of Marietta, who has been in New York for some time taking up the study of the eye, has returned on an extended visit.

Ralph W. Nauss, of Columbus, graduate of Ohio State University, has been appointed from St. Louis as one of the government internes at Panama.

A. B. Collins, of Linesville, who has been at Hot Springs, Arkansas, since last November, on account of rheumatism, is at home again much improved in health.

J. H. Lowman, of this city, who was operated upon for appendicitis a few weeks ago and who has been at Lakeside Hospital, has greatly improved. He has been removed to his summer home on the ridge at Wyckliffe and will remain there some time.



The following Clevelanders registered at the Toronto Meeting: W. J. Abbott, Dudley P. Allen, A. R. Baker, T. A. Burke, Wm. Chambers, Wm. T. Corlett, W. F. Doolittle, C. G. Foote, Martin Friedrich, A. F. House, W. H. Humiston, S. H. Large, J. J. R. Macleod, W. H. Merriam, Myron Metzenbaum, H. J. Moyer, Hiram B. Ormsby, W. O. Osborn, E. F. Romig, John P. Sawyer, Wm. E. Shackleton, H. G. Sherman, F. C. Waite.

The monthly meeting of the Tuscarawas County Medical Society was held at Newcomerstown, August 7. The attendance was good, a number of physicians from Coshocton being present. J. H. G. Upham, of Columbus, read a most interesting as well as timely paper on "Clinical Significance of Albuminuria," which was followed by an entertaining paper on "Medical Fads," by C. U. Patterson. J. E. Groves, S. B. Hayes and S. M. France reported on cases.

The Columbiana County Medical Society held a most interesting as well as profitable meeting August 14. Alex Cruikshank, of Salem, read a paper on "The Diet of Infants"; William E. Lower, of Cleveland, read an excellent paper on "Treatment of Diseases of the Prostrate Gland." These were well discussed by those present, after which Dr Lower was given a vote of thanks and made an honorary member of the Society. The next meeting will be held in East Palestine, September 11.

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The Putnam County Medical Association held one of the most enthusiastic and largest meetings in the history of the society, August 16. The following physicians were present: C. E. and C. O. Beardsley, Frank Light and Sheibley of Ottawa; Frank Morris, W. W. Begg, Zink, Lafferty and Wilcox of Columbus Grove; Balmer and Bixel of Pandora; Harrey, Louis, B. E. Watterson, Bird, Oller, Harry Louis Jr., of Continental; Lemley and Downing of Vaughnsville; Jenkins, of Rushmore; Francis, of Ft. Jennings; Stateler, of Dupont; Oakley, of Ottoville; J. H. Jacobson, of Toledo, the Councilor of this the Fifth District; F. S. Williams and C. F. Douglass of this place. The following program was then rendered:

1. Adenitis—A. F. Sheibley.
2. Comparative Study of Arsenic, Vegetable Carbon and Nux Vomica—W. J. Francis.
3. Some Considerations on Traumatic Neurosis—J. C. McClung.
4. A few Remarks on Diabetes Mellitus—C. W. Bird.
5. Address by Councilor, J. H. Jacobson.
6. Dinner at five o'clock, served by landlord Wimert.

The above papers were read and ably discussed, all of the physicians present taking an active part in the discussion. There were quite a number of clinical cases presented and discussed. The address of Dr Jacobson was of unusual interest to the profession, his subject being one of great interest—that of the "Preparation, Care and Management of Surgical Cases at Home." The next regular meeting will be held on the last Thursday in September, at Ottawa.

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## Deaths

Albert King, of Youngstown, died at his home during the latter part of July.

James Gillard, of Sandusky, died at his home after an illness of several months.

Morris Marvin, of Napoleon, died recently. He formerly practiced at Findlay and Leipsic.

C. M. Showman, of North Baltimore, was drowned near Grand Rapids in the early part of August.

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## Myocarditis in Acute Infectious Diseases

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That the heart is affected in acute infectious diseases has been known since the first quarter of the last century when Louis made his observations on typhoid fever at the Charité in Paris. The later French and German clinicians confirmed these discoveries of Louis. Then similar myocardial changes were observed in diphtheria and scarlet fever, so that now it is well established that myocarditis is not an uncommon complication in these diseases. Schmaltz last year demonstrated myocarditis in 38% of his scarlet fever cases. Not so much work has been done in this direction in influenza, tonsilitis and pneumonia, but there is no doubt but that myocarditis exists also in these affections as well. It has been the custom to speak of heart failure, weak heart, acute dilatation of the heart in acute respiratory conditions but the cause of the heart disturbances and even the sudden death occasionally observed is in all probability due to acute myocarditis. And I wish on this occasion to call attention to the presence of myocarditis in pneumonia and especially to the value of the systolic murmur at the base of the heart over the pulmonic area as a sign of its presence.

Louis says that in the first week of typhoid fever the heart has the color of a dead leaf. In the second week the right side of the heart is dilated and flaccid. He calls attention also to the fact that this flaccidity and dilation of the right side and left auricle are in marked contrast to the contraction of the left side. Andral, Chomel, Stokes and Leyden confirm these observations. Romberg in an extensive review and study of the subject proves

that this heart disturbance is due to a true myocarditis and that it is a parenchymatous myocarditis in diphtheria and interstitial myocarditis in typhoid fever and a mixed form in scarlet fever. In diphtheria the pathological changes may be fully established by the fourth day, and in scarlet fever somewhat later. By the second or third week the progressive process ceases and resolution and repair begin and proceed at a reasonable pace. The interstitial form is more apt to lead to permanent results as shown by the persistence of heart murmur and clinical changes. Rosenberg states that the process is less frequent in scarlet fever. And I am satisfied from the time that my attention has been attracted to the subject that it develops much more frequently in pneumonia also. For this reason I am impelled to call attention to it here.

In the course of any acute infectious disease the heart should receive the closest attention. The first sign of myocardial weakness that is manifested is an accentuation of the pulmonic second sound. Romberg declares that even this early sign alone may be an indication of an insufficiency of the mitral valve. This is of course a very advanced position. Ordinarily an accentuation of the pulmonic second tone is explained by an increased tension in the smaller circulation due to the weakness of the left ventricle and the consequent fullness and tension in the left auricle. The blood does not leave the ventricle with the same facility and consequently cannot leave the auricle with the same freedom. Whence come naturally a heightened tension in the pulmonic veins, lungs and pulmonic arteries, and the tension in the pulmonic arteries explains the forcible closure of the semilunar valves in the right auricle and the accentuation of the pulmonic second tone. This early weakness of the left heart is probably one factor in the explanation of the constant lowered tension in the general circulation as shown by the tonometer. A mitral insufficiency would be followed and is always attended by these same phenomena. It is therefore exceedingly difficult to state when an accentuation of the pulmonic second is an indication of an insufficiency of the mitral. It is interesting however that some acute observer should say that it is such an indication, although it is difficult to prove.

The next sign which frequently appears is a reduplication of the heart, this can be similarly explained by the increased tension in the smaller or pulmonary circulation and diminished tension in the larger or systemic circulation. The pulmonic valves



close earlier than the aortic and consequently a double second or split second is observed. When the heart beats slowly, say 40 beats to the minute, one can easily hear that the first tone in the doubled second is louder over the pulmonic area, and it is not difficult to convince oneself that the reduplication of the tone is due to the advance of the pulmonic closure. When an accentuation of the pulmonic second tone is followed in a day or two by a reduplication of the second tone, the suspicion of myocarditis is deepened. It can positively be surmised that there are grave lesions in the myocardium and that other symptoms confirmatory of this will probably follow sooner or later. The third sign which is apt to manifest itself is a systolic murmur at the base heard with greatest distinctness over the pulmonic area. The significance of this sound (or noise as it should be called) is most interesting. The pulmonic area with its murmur is still known as a *terra incognata* and has not been satisfactorily explained.

Since Potain's masterly treatise on extra-cardial murmurs this basic murmur has frequently been called a cardio-pulmonic murmur. There is undoubtedly a cardio-pulmonic murmur that is dependent on the heart movement but due to conditions of the lung. But the so-called hæmic or febrile murmur need not always be explained on that hypothesis. Balfour says that a systolic murmur in the pulmonic area is sometimes an indication of senile myocarditis. This fact was known also to Skoda. Yet the text books fail to make mention of this explanation. Sahli however admits in his recent work the possibility of a murmur in the pulmonic region being due to mitral regurgitation. This murmur frequently appears in typhoid fever and has for want of a better name been called the febrile murmur. It will develop while a patient after the first week is in transit from his house to the hospital. I have frequently observed such patients in their beds at home in the morning without the murmur and in the evening demonstrated the murmur in the hospital. Sometimes this murmur will disappear but more frequently it will persist during the illness, and be present when the patient leaves the hospital. It is often explained as a cardio-pulmonic murmur, but a more probable explanation is, that it is due to a myocarditis with a dilatation of the *ostium arteriosum*.

With the development of the murmur at the systole over the pulmonic area the apex moves to the left. There may however be a murmur present without a displacement of the point of maximum impulse. The last and most significant sign in the

early development of the disease is the systolic murmur in the apical region. The systolic murmur at the apex, especially when transmitted to the axilla, has long been regarded as a sign of mitral insufficiency. The murmur is heard sometimes over the entire præcordium; it is transmitted to the pulmonic area and resembles the hæmic murmur there. Thus it is well known that a mitral insufficiency can produce a distinct murmur at the base over the pulmonic area systolic in time. The only contention is whether a mitral insufficiency can produce a systolic murmur at the base without a murmur at the apex, and whether there can be definite signs of mitral insufficiency without a displacement of the left ventricle. I am satisfied that this is possible and it will only require the narration of one typical case of myocarditis following pneumonia to prove this.

The pulse rate is modified in myocarditis in various ways. The first indication of the onset of the disease may be a slow pulse. I have seen as low as 35 beats per minute. Pulse rate of 40 to 45 and 50 are common. The onset may again be accompanied by a rapid pulse rate and the first indication of trouble will be a pulse rate of 120 or 130. The slow pulse will change sometimes to the rapid one, but the rapid pulse not so frequently to the slow pulse. Arrhythmia may be present in any case but is not relatively so often present as in chronic myocarditis with a commencing failure in compensation. The changes in the pulse and the position of the heart not infrequently appear late, even after convalescence is established. There may therefore be no clinical signs apparent unless the heart is closely inspected. In fact there may be in mild cases no marked changes in the pulse or the position of the apex at any time and the heart complication pass through its entire cycle to recovery with no marked clinical phenomena. Close observation of such cases will however demonstrate the fact that the pulse is erratic and becomes now fast, now slow, and that the apex of the heart move outwards temporarily from slight causes, as sitting up in bed, unusual activity, bad night, restlessness or a difficult defecation.

The duration of toxic myocarditis is often from four to six weeks in the young, strong and vigorous. But a dilatation of the heart following an infectious disease, and due to a myocarditis, may also be and not infrequently is persistent. This persistent dilatation I have known to follow influenza. It is occasionally called the convalescent heart but is undoubtedly a myocarditis. In arterio-sclerosis of the heart without physical signs a perma-

nent dilatation with a mitral murmur may be introduced by influenza or pneumonia or even tonsillitis. In this latter disease tonsillitis with a persistent fever, showing a decided infection, myocarditis is not an uncommon and is an unsuspected cause of a slow convalescence.

As resolution of the heart muscle reestablishes itself after the acuteness of the disease passes, the physical signs of the heart disappear in the inverse order they appeared. In a typical case, they are not by any means uncommon, and the systolic murmur at the apex diminishes in intensity until it becomes inaudible. The apex moves inward, the murmur at the base, which may have been very loud, grows fainter, but persists after the murmur in the apical region has disappeared. The double second tone may or may not continue through resolution. Finally no changes from the normal heart tone is heard but the accentuation of the pulmonic second tone. The question of endocarditis and endomyocarditis will naturally present itself and the problem of a differential diagnosis between these possibilities and myocarditis will obtrude itself. A complete and satisfactory solution of the matter certainly is not always possible. But when in the course of a convalescence the signs of heart dilatation gradually appear, as above described, and there is no fever, one naturally decides in favor of myocarditis, and when the signs disappear in four or five weeks this conclusion must certainly be confirmed.

The frequency with which myocarditis follows pneumonia I am unable to state. I have however seen many instances of it. It may not be uninteresting to survey rapidly a typical case of this complication of pneumonia which I was able through the courtesy of Dr H. J. Gerstenberger to follow in a boy of ten, who had frank pneumonia which began with a severe abdominal pain suggesting appendicitis. The case passed on uneventfully to crisis and convalescence. As resolution was about established and five days after the fever had disappeared, a change was noted in the heart tones and the pulmonic second tone was observed to be accented, in two days the second sound was reduplicated and a systolic murmur was heard at the base of the heart. The next day the pulse dropped to 40 beats per minute, at which point or immediately thereabout it remained for several weeks, the murmur grew more distinct each day until it became very loud and unusually conspicuous. Even at this time there was no apical murmur and no displacement of the apex of the heart. Six days after the first signs at the base the apex moved to the left and the



apical systolic murmur appeared. During this week the patient felt well, was free from fever and was active, even too active, in bed. In order to restrain him he was removed to Lakeside Hospital. With the development of the apical murmur the basic murmur lost its high intensity. This was probably due to the diminished velocity of the blood at the mitral valve as the auricular ventricular orifice widened. Three weeks after the pneumonia convalescence was established the systolic murmur at the apex began to lose its intensity, and gradually grew fainter, at the same time the basic murmur grew fainter also and the point of maximum impulse, which had been 10 m. m. from the median line, measures 8 m. m. The reduplicating second tone and accented pulmonic second and the bradycardia persisted. Five weeks after convalescence the apex murmur was very faint and the other signs still present. During this time the boy had remained constantly in bed, had had no fever and was in good general condition; the urine was uniformly negative.

In a second case the patient made an uneventful recovery from lobar pneumonia. One week after convalescence was established he was examined in the morning and the heart found to be negative with a pulse of 80. At three p. m. the pulse was 45, a basic murmur has appeared, the pulmonic second was accented. These symptoms persisted two weeks and then gradually disappeared.

A third case was convalescent with a sound heart. Six days after cessation of the fever the pulse suddenly rose 120 per minute. A basic murmur appeared, followed in two days by a marked apical systolic murmur. There was no recurrence of fever, but the heart signs persisted in a less intense degree for two years, when the patient was lost sight of.

Sometimes the dilatation will show itself as late as four weeks after convalescence. Often in fact the patient has been discharged by his physician as cured. Such an instance passed under my observation following measles. The patient, a man of thirty years, developed dyspnea four weeks after his convalescence from measles. A systolic murmur and displaced apex was observed with the usual accompanying signs of the base. Such instances as this occur sufficiently often, especially in children, after infectious disease, to urge upon the clinician the observation of his case as long as possible after apparent recovery.

## Rambling Notes on the Scope and Aim of Orthopedic Surgery

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The derivation of the word "orthopedic" from two Greek words "to straighten child" is an unfortunate one, because, in the first place, orthopedics does not always have to do with straightening, and in the second place, it is by no means limited to the treatment of children. Orthopedics today in its broadest sense means the study, prevention, and treatment of deformities either in adults or children.

At first sight one would suppose that orthopedics is a specialty which is limited to the bones and joints, but such a definition is too broad from one point of view and not broad enough from another. It is too broad because, as a rule, the orthopedic surgeon does not treat all lesions of the bones. Fresh fractures and dislocations must necessarily and always will go to the general practitioner, because they come under the category of accident cases and must be treated as soon as possible after the accident. From the other point of view, such a definition is not broad enough, because orthopedic surgery also treats things in which the bones and joints are not involved, as the paralytic diseases, resulting in contractures and other deformities. But if orthopedic surgery is to be regarded as that specialty pertaining to deformity, it must limit itself definitely to such deformities as have been empirically given over to it. It must not treat deformities of the face, or of the nose, or of the throat, nor such deformities which are produced by tumors which externally would cause an apparent deformity, for all these things are well taken care of by other specialists, but with these exceptions probably the best understanding of the word orthopedics is implied in the phrase "the treatment of deformities."

### CLASSIFICATION

In our work we have used as a basis a classification founded on the etiology. In this classification we have grouped certain deformities under certain heads, not because they are always due to a particular cause, but because they are most frequently of that type. For example, club foot is placed under the head of congenital deformities, although, of course, club foot may also occur as a result of infantile paralysis or other things.

Following is the classification used:

1. Rachitic deformities, as bow legs, knock knees and allied deformities.
2. Tubercular deformities, as Pott's disease, tuberculosis of the hip, of the knee, of other joints.
3. Paralytic deformities, as infantile paralysis, spastic paralysis, other nerve and muscle diseases.
4. Arthritic deformities.
5. Static deformities, as scoliosis, round shoulders, flat foot and allied affections, coxa vara and coxa valga.
6. Old traumatic deformities, especially of hip, knee and ankle.
7. Congenital deformities, as congenital dislocations, congenital defects, club foot.
8. Costume and shoe deformities.
9. Deformities of miscellaneous origins, as torticollis, relaxation of pelvic joints, slipping of patella, displaced cartilages, defects of bones, etc.

#### DEVELOPMENT

In the olden days the general practitioner found occasion at times to prescribe a brace for a cripple and sent his case either to an instrument store, or a blacksmith, or some mechanic, to have a brace made. But braces made in this fashion would not answer the purpose, and presently there sprung up a number of physicians who devoted themselves to the study and manufacture of good and proper braces. The result of this was, to a certain extent, satisfactory. The braces turned out were excellent, and today we still use the patterns which were established by men who devoted themselves to this work.

It presently developed, however, that certain of these brace-makers realized that brace-fitting was only a small part of the treatment in many of their cases, and with the advent of therapeutic exercises abroad, and with the sudden dawn of cutting operations in surgery, the brace-making physician found that his case could often be benefited in these ways, as well as by the use of braces. Feeling that the responsibility of the case was his, he desired to assume the treatment in toto, and not merely in part. As soon as the orthopedic surgeon came into this realization he became a specialist and his sphere broadened in his own specialty with great rapidity.

We have said that the orthopedist arose from the ranks of a brace-maker to the ranks of a brace-making surgeon, yet the operative part of orthopedic surgery is and always will be a secondary consideration, for no matter how good and proficient an operation may have been carried out, the final results must depend chiefly and always upon the after-treatment.

In the matter of braces, the responsibility must rest with the orthopedist. In the first place, he must know when a brace is



indicated; second, he must know the kind of brace that is indicated; third, he must be able to design that brace, and lastly, he must know that the brace is correct when finished, and that it is doing its work. In short, whatever orthopedics will amount to in an operative way, the mechanical part of the treatment can never be neglected.

On account of an unpleasant newspaper notoriety the term "bloodless" has been associated with orthopedic surgery. Nothing could be more erroneous than to suppose that any orthopedic surgeon would for a moment hesitate to cut if a cutting operation were indicated. Bloodless surgery is as old as Hippocrates, who accurately describes a correct treatment of club-foot by the bloodless method. A number of operations, however, must require the use of the knife or tenotome to bring about the proper results. Then again there are a number of deformities in which the result may be obtained either by operating or by braces; for example, bow-legs. In such a case much depends upon the condition of the child and its age. Sometimes the decision may be left to the parents, the chief point being that brace treatment, to effect a cure, always requires a considerable length of time, while operative treatment, if it is indicated, may accomplish the same things very quickly, but with a slightly increased danger. It must always be remembered, however, that even after operative treatment, plaster or braces may be indicated for a period afterwards.

What are the aims of orthopedic surgery? There are few things in this specialty which can be accomplished quickly. Almost every case is a severe test of patience, both to the surgeon and the patient. The latter often hopes for a cure when none can be accomplished. Many cases wander from one man to another, sometimes getting into the hands of osteopaths, bone-setters and the like, and then often philosophically deciding that the less done the better. The patient thinks he has tried everything and has given up in despair. It is often true that such cases are justified in their opinion, but it is seldom that a case cannot be improved at least a little. This should be the first aim of the orthopedist, namely, to improve if only to a slight degree. It is only by steps of improvement that a good result can be finally accomplished. To measure improvement entails the keeping of fairly accurate records, occasional photographs and tracings. In this way it is often possible to satisfy the patient of what has been accomplished.

We have said enough to show that an important part of ortho-

pedic surgery is the treatment of incurable cases, as, for example, those of the tubercular type, which are often bound to result in ankylosis in spite of everything. Such cases are not spectacular, nor are they the easiest to treat, but they are the ones which require the specialist, above all, because the final position and the degree of deformity depends in every case upon the treatment.

In such cases as are curable, as, for example, club-foot, the element of time is of great importance. Not only must the deformity be obliterated, but as the part assumes normal contours, it must learn to functionate in a normal manner. Not until this stage is reached can the case be said to be cured.

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## Some Observations on Surgery of the Gall-Bladder and Bile Ducts

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Surgery of the gall-bladder and bile passages is one of the most satisfactory branches of our art, and according to the light of our present knowledge, inflammation of the biliary passages is due to the introduction into them of bacteria. It is hardly probable that a foreign body can produce inflammation without bacterial aid, although foreign bodies undoubtedly favor bacterial infection. This being so, we shall more readily appreciate the theory that the gall-bladder is infected through the bile in a majority of cases and not through the duodenum and common duct. It is quite probable that this latter route of bacterial invasion takes place especially in the more serious grades of infections. The belief that normal bile is always sterile is not true, and we must look upon the biliary secretions as containing a few bacteria which can be detected if a sufficiently large amount of bile is examined.

A gall-bladder once infected remains infected and only needs a disturbing element to produce a serious attack of cholecystitis with or without a stone or with or without an exudate, and from this condition adhesions between the gall-bladder and omentum or between the intestine and stomach may follow.

It is an undoubted fact that the most common manifestations of the presence of gall-stones is never referred by the patient and rarely by the medical attendant to the gall-bladder or bile

ducts. The most careful examination into the history of a long series of cases treated by operation will show that in almost all cases the earliest symptom of which the patient complains, and at times causes intense suffering, is attributed to an attack of indigestion. The terms as used by many patients in describing the symptoms of epigastric pain as gastric catarrh, gastralgia, neuralgia of the stomach, nausea, spasms and flatulent distention of the stomach, are a few of those most frequently heard. It will thus be seen that most all refer the cause of their illness to the stomach and not to the liver. In a large majority of cases it requires the unmistakable evidence of jaundice to convince the patient that their suffering is due to gall-stones, and not a few medical men as well. Yet jaundice is an infrequent and an inconstant symptom of gall-stone disease.

To understand more intelligently these conditions, let us classify according to the pathologic conditions found; first is the class of cases where stones are found in the gall-bladder with open cystic duct and without adhesions; the second is the same as the first but with adhesions, and the third with the cystic duct closed, either by stones, kink or stricture. Stones in the common or hepatic duct may cause acute or chronic obstruction of these passages. Inflammation of these ducts is essentially the same as that of the gall-bladder but is more likely to be followed by diffuse cholangitis, thrombophlebitis, pancreatitis, abscess of the liver or empyema.

The symptoms and signs in cholelithiasis vary in their severity and degree as well as in the nature and character of the pain. Usually gall-stones cause two different sets of symptoms depending on their location, whether situated in the gall-bladder and cystic duct or in the common or hepatic ducts. When located in the gall-bladder or cystic duct they give rise to painful contractions and enlargement of the gall-bladder, which, in time, becomes chronically inflamed, its walls thickened and contracted [specimen shown] and often ulcerated. This condition is apt to result in regional peritonitis and adhesions, and if the infection be a virulent one, it may cause an acute phlegmon and even gangrene with diffuse peritonitis and death.

It follows then from the varied pathologic conditions found in cholelithiasis that the symptoms of the disease must be equally varied. Pain may be classified as: first, the acute inflammatory or infective type which occurs in virulent infections and is accompanied by involuntary muscular contraction of the organ or tissue



in which it is situated; second, the aching, cumulative tension type which is not guarded by abdominal tension but is defended by sudden muscular contraction when pressure is made on the distended viscus. The most characteristic reaction of this type of pain is that elicited by deep palpation just below the right ninth costal cartilage or in a line from that point to the middle of Poupart's ligament, as this is the common track of gall-bladder enlargement. Deep percussion along the same line with the patient in forced inspiration gives pronounced pain.

The most characteristic and constant sign of gall-bladder hypersensitiveness is the inability of the patient to take a full deep inspiration when the physician's fingers are hooked up deep beneath the ninth costal arch, below the hepatic margin; the diaphragm forces the liver down until the sensitive gall-bladder reaches the examining fingers, when the inspiration ceases as though it had been shut off. (Murphy). Third, the so called deferred pain or ache which accompanies either of the two preceding types. In this there is neither sensitiveness to percussion or pressure at the point to which the pain is referred. In obstructions to the pelvis of the gall-bladder or cystic duct the pain is referred on an average of 70% to the right subscapular region, 10% to the left subscapular region and 20% varying from the precordia on the left to the subclavicular region on the right of the sternum and up the neck. In all there is a local pain in the gall-bladder region extending toward the left to the epigastrium. Hepatic colic is the most characteristic and the most commonly recognized form of pain associated with gall-stone disease. It comes on with absolute suddenness, produces a degree of collapse that may be profound and soon induces faintness, sickness and vomiting; the patient is cold and yet sweats profusely. To see such a patient in the utmost extremity of his suffering is enough to convince one that a spasm, similar to the spasms of the intestine or of the ureter, in the cause of the intolerable pain.

It is present, however, in those cases only in which a stone or a foreign body is being transmitted through a canal, the lumen of which is normally smaller than the diameter of the foreign body.

If the stone, while in the passage through the ducts, becomes arrested, the colic gradually ceases and disappears. The stone may rest in its position many years without causing a spasm but the moment it attempts to resume its journey the pain will surely return and the colic will be as severe as before.

Nausea and vomiting are among the most common of the manifestations of cholelithiasis. It is indeed their frequency which is responsible for the unjust and heavy burden which is laid upon the stomach. Indigestion, the nausea and emesis of biliary colic are reflex symptoms.

The same as the nausea and vomiting induced by the passage of a renal stone from the pelvis of the kidney to the ureter is attended by the sudden feeling of intense prostration and sickness, so is the passage of a stone into the orifice of the cystic duct. I believe that in all patients who suffer from constant attacks of so called indigestion, accompanied by nausea and vomiting, it is desirable that the possibility of the existence of gall-stones should be borne in mind; the examination of such patients should include an attempt to elicit the pressure sign to which reference has already been made.

Jaundice, unfortunately, occurs in only about 15 to 20% of the cases of cholelithiasis. If icterus occurred more frequently than it does there would undoubtedly be an earlier and more frequent diagnosis in gall-stone disease. Jaundice in cholelithiasis may be said to depend on one or the other of two factors: impaction of a stone in the hepatic or common duct or, rarely, of a large stone in the cystic duct, causing pressure on the common duct or infection of these ducts. Jaundice varies greatly in the character of its appearance and of its disappearance. When jaundice is due to gall-stones it is almost without exception preceded by colic. In upward of 80% of cases of cholelithiasis with jaundice, Courvoisier found the gall-bladder contracted, therefore in four-fifths of all the cases of cholelithiasis with jaundice we should expect an absence of tumor formation.

The greater portion of the 20% in which there was an enlargement of the gall-bladder was due to impaction in the common duct under the same circumstances. Where the obstruction was due to other causes and particularly when associated with jaundice, the same author found an enlargement or tumor of the gall-bladder in upwards of 90% of the cases. The contraction or diminution in size of the gall-bladder in cholelithiasis is due to infection, infiltration and subsequent contraction. This led to Courvoisier's law which is, in 80% of the cases of obstruction of the common duct due to stones, there is contraction of the gall-bladder, while in 90% of the cases of enlargement of the gall-bladder the obstruction is due to causes other than stones, such as cancer and cysts of the pancreas, pressure from other neoplasms. (Bremer.)

*Fever:* Temperature in biliary infection is characterized by its abruptness; the temperature rises rapidly, attains its maximum and then with almost equal rapidity returns to the normal. In the slighter cases the temperature rises to 100° or 102° and some local tenderness is developed, but within two or three days returns to the normal. In the more severe cases a chill may occur and the infection may be so severe that an acute cholecystitis may develop and the life of the patient be jeopardized.

*Tumor:* A tumor formed by an enlarged gall-bladder is not always an easy matter to diagnose. It forms a prominence visible on inspection of the abdomen in some cases. It is generally pear-shaped or oblong in form, although it may be globular in appearance, smooth in contour, and may sometimes possess a range of considerable mobility, and reaching in some cases as far as the left hypochondrium. Usually the mass is tender and a feeling of nausea is excited upon palpitating it. Tumor of the gall-bladder in cholelithiasis occurs as a result of a block in the cystic duct, either by stone, by the enlargement of a lymphatic gland or by tortion or flexion at the neck of the gall-bladder.

The differential diagnosis of gall-stone disease and many other affections producing pain, localized or general within the abdomen and radiating to the chest and back with vomiting and perhaps collapse, is often a matter of difficulty. The various diseases with which gall-stone disease may be confounded are gastric ulcer, or rarely carcinoma—duodenal ulcer, appendicitis in its varied forms, diseases of the right kidney, more especially calculous or that intermittent kinking of the ureter or of the vessels of the kidney which causes Dittel's crises.

Let me also call your attention to the relation between gall-stone disease and acute and chronic pancreatitis. Clinically, many cases of acute and chronic pancreatitis give typical histories and symptoms of gall-stone colic with and without jaundice, and yet on operation we find no stones in the gall-bladder or its ducts but an indurated pancreas with dark, thick, inspissated bile in the gall-bladder. These cases are relieved by cholecystostomy as in the following case:

Mrs. S., aged 41, married, mother of four children, has always enjoyed good health up to within six weeks before operation, save on two occasions when she had attacks of pain which her physician had thought to be gall-stone colic. I saw her in consultation a few days previous to the operation and she had then been in bed on and off for six weeks. At that time her temperature ranged from 100° to 103°, she was in constant pain, had



occasional chills and loss of appetite, accompanied by vomiting and extreme tenderness with rigidity of the muscles in the right hypochondriac and epigastric regions.

On the evening before the operation, which occurred in February of last year, she had a temperature of  $104^{\circ}$  and a pulse of 120, was severely jaundiced and suffered great pain and occasional vomiting. An incision was made at the outer border of the rectus muscle, and the peritoneal cavity was opened. No gall-bladder was visible; nothing but a mass of adhesions could be seen. The omentum, intestine, liver and stomach, all seemed to be one mass. After separating the liver from its contiguous organs, which took considerable time, a diligent search failed to locate a gall-bladder. In the fossa to the right of the longitudinal fissure, in which lies the gall-bladder, a mass of fibrous-looking tissue could be seen and felt, but there was no vestige of a gall-bladder. On passing the finger through the foramen of Winslow down along the common duct to the head of the pancreas where it passes through, a mass was felt, not in the duct, but in the head of the pancreas. On palpitating this mass with the finger, it was hard and seemed indurated. This I immediately decided to be a malignant growth of the pancreas. The peritoneal cavity was thoroughly irrigated with normal saline solution, a gauze drain was introduced and the wound was closed up to the drainage tube. That evening her temperature dropped to  $102^{\circ}$ , and her pulse to 100, and to my surprise she made an uninterrupted recovery. She has not had any pain or trouble since. This case I am fully satisfied was one in which a benign transitory swelling of the pancreas caused sufficient pressure to obstruct the common duct and clinically gave a typical history of gall-stone colic.

When a stone is impacted in the pelvis of the gall-bladder or in the cystic duct the gall-bladder distends behind the obstruction. The fluid contained within it may at first be deeply tinged with bile but soon all trace of coloring matter disappears and a condition of hydrops exists in which a clear or opalescent, mucoid fluid is found.

Mrs. C., aged 34, mother of two children, shortly after the birth of her last child, which was in the latter part of March, 1906, noticed a swelling in the right iliac fossa, with severe pain in the back and right subscapular region. Three days before admission to St. Clair Hospital the pain in the back became very severe, accompanied by chills, fever and vomiting, and the swelling in the right side increased rapidly in size. In the morning of May 21, 1906, the day that she was brought to the hospital, a diagnosis was made of chronic suppurative appendicitis by one physician and an inflamed cystic kidney by another. Present examination inspection shows a large globular mass in the right iliac fossa, reaching to the left of the median line. On palpation the mass is firm, very painful and immobile. Percussion

gives a flat area, extending from the lower border of this mass to the sixth rib above. She is emaciated, with a rapid and feeble pulse; urinalysis shows no albumen, and no sugar.

*Diagnosis:* A probable empyema of the gall-bladder with obstruction of the cystic duct and a virulent infection.

*Operation:* The line of incision was made within the outer border of the right rectus muscle and of sufficient length to admit exploration and inspection of the gall-bladder, its ducts, stomach and duodenum. The fundus of the gall-bladder, which was the size of a small fetal head readily presented itself through the incision, due to its large size from distention, edematous and infiltrated walls. The posterior surface was completely hidden by adhesions of the omentum, large and small intestine, and lower down by the adherent stomach. The liver was enlarged and reached a hand's breadth below the costal arch. After all adhesions were separated, palpation showed a large calculus (stone shown) impacted in the neck of the cystic duct; the hepatic and common ducts were patulous. After ascertaining that the gall-bladder contained no bile a cholecystectomy (specimen shown) was made. If there is infection the fluid becomes purulent and a condition of empyema of the gall-bladder exists, as in the following cases:

Mrs. S., aged 45, married, mother of one child, had always enjoyed good health. Six years ago she had an attack of supposed gall-stone colic followed by slight icterus of the skin, but had had no subsequent trouble until July 13 of last year, when she was suddenly taken with a severe chill and slight pain in the hypochondriac and epigastric regions. Within 15 days she had 14 chills, and these occurred between 10 and 11 o'clock in the morning. There was but slight rise in the temperature and pulse rate, and no vomiting, but the bowels were constipated. A diagnosis of malarial fever was made. On August 5 she was taken with severe pain. I saw her in consultation about noon and again late that evening. She was extremely tender over the right upper quadrant of the abdomen, had occasional spells of vomiting, and was suffering such intense pain that large doses of morphin gave but slight relief. On the following day she was taken to the hospital, where she was operated upon. The incision was made at the junction of the ninth costal cartilage. On opening the peritoneal cavity the gall-bladder was found to be small and very much thickened and tense. After separating some omental and intestinal adhesions, guy threads were introduced into the fundus of the gall-bladder and the peritoneal cavity was well packed off. A large aspirating needle was introduced, and as much of the pus as would flow through the needle was drawn off. The gall-blad-

der was then incised and wiped out with sterile gauze, and from the lower portion of the gall-bladder and cystic duct 97 gall-stones were removed. I believe that this is a case where cholecystectomy should have been done, but owing to the poor condition of the patient it was not deemed advisable to prolong the operation.

Miss V., aged 22, occupation stenographer, always enjoyed good health until the summer of 1903, when she was taken with pain in the right hypochondriac and epigastric regions, accompanied by severe vomiting. These paroxysms of pain and severe vomiting continued off and on the entire summer; she lost flesh and became almost an invalid. In the fall her condition improved and she was informed that her illness was acute catarrh of the stomach. In March, 1905, she was again taken with pain in the right hypochondrium, which was so severe that she was compelled to remain quiet for four days. In the latter part of July this pain again became severe and extended down to the right iliac fossa. Shortly after this attack the diagnosis of appendicitis was made by a surgeon who was called in as consultant. From this time until August 14, 1905, the day of the operation, she was confined to her bed.

*Examination:* Inspection shows a tumor in the right iliac fossa. Patient pale and somewhat emaciated. No icterus. On palpation the mass is slightly mobile, pear shaped, and painful on pressure, with rigidity of the muscles on right side. Percussion shows dullness from the right ninth costal cartilage. In a line from that point to the middle of Poupart's ligament, deep percussion along this line with patient in forced inspiration gives severe pain.

*Diagnosis:* Cholecystitis with a possible empyema of gall-bladder.

*Operation:* The usual incision at the outer border of the right rectus muscle. On opening the peritoneal cavity the gall-bladder was found to be adherent to the parietal peritoneum, omentum, appendix and colon. After separating these adhesions the hepatic and common ducts were found to be patulous. No stone could be felt and a cholecystectomy was made (specimen shown) the method for which I shall have occasion to refer to later on. This patient had no rise in temperature or acceleration of pulse after removal of the gall-bladder.

These cases illustrate how rapidly destructive virulent infections of the gall-bladder become under the pressure of accumulating products with impaction of the neck of the cystic duct. This condition of the cystic duct and its patency is a most important element in the problem, and the question of treatment is, to a large



extent, based upon this one factor: If the cystic duct is closed mechanically, either by stone, kink or stricture, a diseased gall-bladder results, which is better out than in. If the infection has confined its ravages to the organ itself and we find a cystic gall-bladder with impacted stones, thick walls, and above all an obstructed cystic duct, such organs are functionless, and if drained and left, a possible source of future troubles, among which may be mentioned reinfection, mucous fistula or colics due to failure to drain its secretions down through the common duct, and cancer. In performing cholecystectomy, I have followed the technic as described by W. J. Mayo: the cystic duct and vessels are caught with forceps, a second forceps on the gall-bladder side prevents leakage and enables division of the cystic duct and vessels. The gall-bladder can be readily separated from below, upward, without hemorrhage or much trouble. When the dissection has progressed a short distance the forceps on the distal end of the duct and cystic vessels are removed after ligature with catgut. This method of removal enables careful ligature of the deep parts and bloodless separation from the liver. I have observed in a number of cases of cholecystectomy that when the raw surface of the liver was large and could not be perfectly closed over, that there was a slight flow or leakage of bile, either from the end of the ligated cystic duct or from the liver itself, for some days after the operation, the same as we see in gunshot and other traumatic lacerationss of the liver, only in a minor degree.

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## A Case of Poisoning with Hellebore

J. W. BOSS, M. D., BIRMINGHAM, O.

Mr A. B., a farmer, in good health, was cultivating corn July 10, 1906, a very hot day. He went to the house for a drink of water. It had been his custom to occasionally take a little ginger, which was kept for household purposes, as he said this allayed his thirst. The ginger and hellebore cans were alike and stood side by side. The hellebore had been used for destroying insects, cspecially on currant vines. Our patient got the hellebore can instead of ginger, and took what was afterward estimated at about 20 grains. Not aware of his mistake he returned to work at once.

In about 10 minutes he began to feel nauseated and weak, and upon attempting to return to the house, he commenced vomiting and became so weak that in trying to climb a fence he became unconscious and was caught on the fence. Here he was soon found, vomiting, unconscious, and, they said, in convulsions. The writer was then summoned, and before his arrival the nature of the trouble had been discovered from the misplaced hellebore can.

Upon arriving from one mile's distance, the patient was found vomiting incessantly, mostly mucus colored with bile. He was pale, slightly delirious, very weak, dizzy, even when recumbent, and bowels moving very profusely. His feet and arms were cold, and he was said to have had a chill. On examination, the radial pulse could not be found; listening over the cardiac region with stethoscope, showed extremely faint heart beat, in fact, just audible. This was regular and rhythmic, but only 24 beats per minute; temperature 98°; respiration irregular, shallow, sighing in character and 10 per minute. Milk had been given the patient before I arrived, but this he vomited at once. To be certain that all poison was out of the stomach, a stomach tube was used and the stomach washed out thoroughly. Whiskey, strychnin and atropin were used freely; the patient was warmed. The vomiting gradually began to lessen, and in two hours ceased, though nausea continued. The bowels continued free for several hours. Pulse in one hour was 28, and in two hours 32. Radial pulse then became just palpable; breathing slowly improved, and in two hours was 15 per minute, with an occasional deep sigh. Other conditions gradually improved. Two hours later he was reported over the telephone as better, dizziness less, somewhat stronger, very thirsty, pulse 40. The following morning patient was much improved, but weak. He had slept little. Pulse 80, regular and rhythmic, but easily compressible. Respiration normal, nausea but no vomiting, tenderness over epigastrium. Patient has now recovered practically entirely.

The above case was especially interesting because of the rarity of the drug thus employed, and because of its extremely depressing effect upon the heart. In this latter respect it closely resembles aconite. Veratrum is the active principle of hellebore.

### “Medical Fees”

The *World's Work*, usually a very conservative magazine, recently had something to say editorially with regard to surgeons' and physicians' fees that seems to us quite wide of the mark. It declared that it had become difficult for the best part of the people of the United States—the well to do class who are neither poor nor rich—to receive the best medical and surgical service, for as a rule as soon as a physician or a surgeon became famous he set his fees so high that none but the rich could pay them. It is true, as the writer admits, that the poor can by going to a hospital have the services of the best surgeons free, so that it is possible for the pauper and the millionaire to have the attendance of the most skilful physicians and surgeons “while the self respecting man of moderate income must take a greater risk at the hands of the less skilful.” The writer considers that “this condition violates the spirit of the best medical ethics as it violates the spirit of the best social service.”

This is of course an exaggerated statement of the state of affairs and is entirely based on the false supposition that only those who charge very high fees are competent physicians and surgeons. As a matter of fact many of the most competent men in the medical profession charge but moderate fees. The very busy man, who almost finds it necessary to charge high fees in order to keep from being overburdened with work, is sometimes by no means so competent as a modest rival. This is very well known by physicians themselves, who as a rule will not be found crowding to the clinics of the fashionable surgeons, though with them the money question is not an issue. If people would only consult their family physician and let him recommend their consultants or surgeons, there would be little danger of a charge beyond their means on the one hand or of the slightest additional risks on the other. The physician or surgeon oftenest mentioned in the newspaper is far from being the safest or the surest, though his charges may advance with his notoriety.

—*New York Medical Journal*.



# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
THE CLEVELAND JOURNAL OF MEDICINE

MONTHLY

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## EDITORIAL

### Tulase

In an address given August 16th, von Behring discussed his new remedy for tuberculosis, which he called rest-bacillus or T C in his first announcement in Paris, October 7, 1905, and now designates tulase. It is possible to immunize susceptible individuals in three ways. The first manner of immunization is after the method of Jenner, that is by attenuating microorganisms that are generally virulent. This v. Behring has utilized in his bovo-vaccine for the immunization of cattle and proposes calling Jennerization. The second manner of immunization is not by living virus but by a toxine derived from the virus. In order to immunize a horse against diphtheria, one injects under the skin a small quantity of the diphthertic toxine and doubles the dose daily afterwards. According to Pliny, the King Mithridates was familiar with the principle of this method of immunization, with this exception, that he introduced the poison into the stomach and not under the skin, whence v. Behring proposes that we denominate this form of immunization Mithridatisation or Mithridatism. In our day, Koch introduced Mithridatism into medical science. He accustomed men to his tuberculin. The third form of immunization is by serotherapy. Mithridatism is clearly

related to serotherapy. In fact it is indispensable in order to produce the serum. Ehrlich distinguishes Mithridatism as active immunity and serotherapy as passive immunity. The former is active, lasts longer and is more dangerous to attain than the latter. Consequently, if we had a serotherapeutic method at our disposal in combatting an infectious disease, it would naturally be preferred. Von Behring holds that active immunization will be the preferred method for tuberculosis, combined perhaps with a serum.

Tulase is a complicated substance made by the treatment of the tubercle bacilli by chloral. It is a clear, colorless fluid of the consistency of honey. For the preventive treatment in infancy he recommends the use of tulase by the stomach or the enteral treatment by means of milk containing tulase: but as the immunity develops slowly, all the general precautions must be observed for many months. With already existing tuberculosis, the remedy is used subcutaneously. Aside from the action of the tulase it is necessary to reckon with gradually developing immunity of the tubercle bacillus itself which is generated by the living cells and must therefore be employed with caution, on account of the higher sensitiveness induced by the components of the invading bacillus.

The tulase will at present be distributed free, but only to such clinics as have a well-equipped laboratory and a medical director who has studied for at least three months in the Marburg Institute, and is trained in the methods taught there. Moreover, it will be given only under the following conditions:

(a) Registrations of observations according to the Marburg scheme of temperature curve, etc.

(b) Application of the remedy according to instructions agreed upon in writing, either by the stomach or subcutaneously, or periodically or continuously.

(c) Dosage, especially in the choice of the first dose and the gradual increase to the final dose.

(d) The choice of patients in relation to age, health, hereditary and other conditions which would have an influence on the prognosis, as to life and physical conditions and the possibility of future observations.

(e) Regular reports to the Marburg Institute each month whether the treatment has ceased or is in active operation.

The commencing enteral dose of tulase is 0.01 and this is to be doubled each day for four days. Then follows a period

of rest of two to four weeks, and then in the course of four days is repeated. Even with this dosage there is sometimes a reaction and falling off of weight but not often.

When employed hypodermically the dose of tulase is very minute and doubled every day for 10 days. Then follows a period of rest for 10 days. Gradually the period of treatment is shortened and the period of rest lengthened until the maximal final dose of one centigram is reached.

Tulase is furnished in ampules hermetically sealed, either in full strength or diluted in weak sulphurous acid solution of one to 10, up to one to 100. By this careful method of exploiting the remedy and collating the observation, the experience of many experimenters can be accurately compared by v. Behring himself. From this last communication, it appears that the remedy is to be used more as an immunizing agent with the young and that its effectiveness as a cure in already established tuberculosis is problematical.

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### Anti-Vaccination Again

We have recently received two small brochures compiled by W. J. Furnival, Esq., of Stone Staff, England, entitled "Professional Opinion Adverse to Vaccination." One volume is devoted to American, Colonial and Continental literature, the other to British literature. These two brochures are evidently published under the auspices of the Anti-Vaccination Society of England. At all events the concluding pages of both volumes contain blank forms in eight languages for enrollment in the International Roll of Anti-Vaccinists. The volume devoted to American, Colonial and Continental literature is of interest to us only in that it opens with an abstract from two papers which appeared in the JOURNAL in February and September 1902. The compiler of this brochure wrote in April of this year asking permission to republish in full these two articles. The JOURNAL communicated with the author, Dr Martin Friedrich, who stated positively that he did not wish them republished. In our reply to the compiler, Wm. J. Furnival, Esq., we stated Dr Friedrich's wish in the matter, adding, however, that in so far as the JOURNAL was concerned, we were willing that such use should be made of these articles as might be deemed pertinent, providing only the following statement should be published in an equally conspicuous place.

"As shown by the records of the Health Office of Cleveland, Ohio, Dr Martin Friedrich was appointed Health Officer during



a waning epidemic of small-pox. He at once, and very properly, began to clean up the infected districts. The last cases soon disappeared, but previous to his campaign their numbers were becoming fewer and fewer.

"In a very short time the disease was again introduced into Cleveland from without. In spite of the previous disinfections, and their vigorous continuance in the new epidemic, the number of cases increased month by month. At first during the spring and summer with increasing numbers of cases general vaccination was not introduced on account of Dr Friedrich's unwillingness to use an unsatisfactory vaccine. Finally, however, a satisfactory virus was secured and general vaccination was begun. The workmen in numerous shops, children about to re-enter school for the fall term and all persons who came in contact with small-pox were vaccinated as rapidly as possible. Within two months after the beginning of general vaccination, an epidemic which had promised by its constantly increasing numbers of cases to be very serious indeed began to decline, and once on the decline dropped off with great rapidity."

In the brochure referred to there is no reference to this statement following the abstract from our JOURNAL, though upon page 175, far removed from the abstract, the compiler has included our statement. It is greatly to be regretted that the JOURNAL should thus unwittingly have aided in the slightest degree in the campaign against vaccination.

As these brochures will undoubtedly be widely circulated we desire in this place to call attention to the true facts of the case. During the past four years general vaccination has been carefully carried out in Cleveland under the direction of Dr Friedrich, our Health Officer, aided by a large corps of district physicians, with the result that during this time the city has been practically free from small-pox. So efficient has been our Health Officer's campaign that, though an occasional case of small-pox has been introduced from without, the disease has failed to find a foothold. At the present time the rules of the Health Office make it imperative that all children must be vaccinated before they are allowed to attend our public schools. Believing that the statement contained in this brochure would receive wide distribution and might readily be credited with undue importance, we have written a letter to the *London Lancet* and the *British Medical Journal*, stating briefly the true facts in the case.

## A Question

Under the new regulations of the Board of Health, as ordered by our Health Code, previously reviewed in the JOURNAL for February 1906, we are given to understand that all milk delivered in the city must be delivered in bottles. It is, we assume, the object of our Board of Health, in the enforcement of this order, to secure greater cleanliness and purity in our milk supply. In the judgment of the writer, it is very questionable whether the enforcement of this rule will accomplish the desired result. Insofar as we are aware no city in the world has attempted the retail distribution of milk in bottles. Under the present arrangement, the consumer who is willing to receive his milk direct from the distributor's milk cans is able to secure early in the morning the milk from the milking of the night before; with the enforcement of this new rule, requiring the delivery of milk in bottles, the consumer, instead of receiving the milk of the night before, will, in many instances at least, receive the milk of the morning before, so that under this arrangement the milk when it reaches the consumer will be 24 hours or more old, instead of 12 hours old, as under the old system.

Except under such conditions that the distributor is able to give his bottled milk the latest and most approved attention in the way of cooling, etc., we do not believe that the mere distribution in glass bottles can prove a gain toward pure milk. So many and such serious complaints have come to our notice in connection with the distribution of bottled milk during the past summer, even under the care of large dealers, as to make one skeptical as to the ability of the small distributor to meet successfully the demands which must come upon him under this new arrangement.

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## Collier's Campaign

The profession at large have great cause to be grateful to *Collier's Weekly* for their fearless and energetic campaign against quackery and humbug, and though we are told that the article in the edition of September 15, is to be the last of this series, it is to be hoped that this journal will not rest long on its oars. Having won so tremendous a victory over every sort of medical iniquity, we trust that *Collier's Weekly* will follow up in the same spirit the work so fearlessly begun. In their search for, and condemnation of, the popular vices of the day, these articles as they have

appeared have spared no one, from the individual to the rich monopoly, and there is something tragic in the fact that in the series of exposures made by this journal almost no community has escaped from censure.

No more patent evidence could be found of the widespread diffusion of quackery and deceit flourishing under the guise of high moral standards, even of the church itself, than has appeared in this series of articles. It is unfortunate that the surface of conditions as they exist in Cleveland has only been scratched, and it is to be hoped that in the near future, Mr Adams may come among us and delve deeper in the cause of decency and common honesty.

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### Ohio State Pediatric Society

We publish on another page an incomplete program for the meeting of the Ohio State Pediatric Society, which is to be held in Youngstown, on Wednesday, December 5. It is the hope of the organizers of this meeting to secure the largest attendance as yet recorded at any similar meeting. Dr W. C. Hollopeter, of Philadelphia, will deliver the address of the occasion and, judging from the program published, there is every reason to expect a most successful meeting. Every Cleveland physician at all interested in pediatrics should do his utmost to make this meeting a success.

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### The Tuberculosis Exhibition

With the double red cross, the emblem of the international movement against tuberculosis everywhere in evidence, the exhibition assembled by the National Association for the Study and Prevention of Tuberculosis was on view in the Young Men's Christian Association Building of this city from the 17th to the 26th of September inclusive.

Cleveland is the twelfth city to have been favored with a visit from this most instructive collection of material illustrative of consumption. From Cleveland the exhibition goes to Cincinnati, to the City of Mexico, to St. Louis, and to many of the cities of the south.

The attendance has been large, all that could be reasonably expected in the location. Arrangements were made by the Anti-Tuberculosis League of the city, through whose auspices it came to us, for the use of the street floor of an empty store on Euclid



Avenue, but at the last moment different arrangements were made necessary by a failure to secure this desirable location. As it was the total attendance probably reached 25,000 persons. Many children of the seventh and eighth grades of our public and private schools were present with their teachers.

Numerous addresses, many of them illustrated by the stereopticon, were extremely important features connected with the stay of the exhibition in Cleveland. Afternoon and evening addresses were delivered, and almost every hour when the assembly room was not so occupied a stereopticon talk was given by Mr. E. G. Routzahn, the efficient manager of the exhibition. The attendance at these addresses frequently taxed the capacity of the hall.

The following program was presented at 8 o'clock:

MONDAY, SEPTEMBER 17—Mayor Tom L. Johnson, Chairman.

The Work Done by Ohio in the Conflict with Tuberculosis, by C. O. Probst, Secretary of the Ohio State Board of Health.

Cleveland in the Struggle with Tuberculosis, by Mr. Harris R. Cooley, Director of Charities.

WEDNESDAY, SEPTEMBER 19—Mr. Samuel Mather, Chairman.

The Great White Plague, Dr J. M. Beffel, Milwaukee, Wis.

THURSDAY, SEPTEMBER 20—Dr A. S. Cooley, Chairman.

Bovine Tuberculosis in its Relation to the Meat and Milk Supply, Dr C. W. Eddy, Superintendent of the Cleveland Meat and Milk Inspection Department.

Morphological Differences in Bovine and Human Tubercle Bacilli, Dr E. P. Schaffter, Chief of Division, Government Meat Inspection.

FRIDAY, SEPTEMBER 21—Mr. W. H. Elson, Superintendent of the Cleveland Public Schools, Chairman.

Tuberculosis in the Schools, Dr Livingston Farrand, Secretary of the National Association for the Study and Prevention of Tuberculosis.

SATURDAY, SEPTEMBER 22—Mr. F. F. Prentiss, President of the Cleveland Chamber of Commerce, Chairman.

Tuberculosis and the Working Man, Mr. Max Hayes, President of the Typographical Union, Mr. J. W. Cannon, Secretary of the Cigar Makers Union, and Dr L. W. Childs.

MONDAY, SEPTEMBER 24—Mr. M. A. Marks, Vicepresident of the Anti-Tuberculosis League of Cleveland, Chairman.

Tuberculosis in its Social Aspects, Mr. Alexander M. Wilson, Secretary of the Massachusetts Association for the Relief and Control of Tuberculosis.

TUESDAY, SEPTEMBER 25—Dr J. H. Lowman, President of the Anti-Tuberculosis League of Cleveland, Chairman.

The Outdoor Treatment of Tuberculosis, Dr J. W. Pettit, Superintendent of the Ottawa, (Ill.), Tent Colony.

WEDNESDAY, SEPTEMBER 26—A Question Box conducted by Mr. E. G. Routzahn, and an address, The Anti-Tuberculosis Campaign in Europe, Dr J. H. Lowman.

The following afternoon addresses were delivered at 4 o'clock:

SEPTEMBER 17—Hygiene in its Relation to Tuberculosis, Dr Martin Friedrich, Health Officer.

SEPTEMBER 18—Tuberculosis and the Trades, Dr Walter B. Laffer.

SEPTEMBER 19—The Significance of the Tuberculosis Exhibit, Mr. E. G. Routzahn.

SEPTEMBER 20—The Modern Treatment of Tuberculosis, Dr J M Lichty.

SEPTEMBER 21—Things Mothers Should Know About Tuberculosis, Dr F. S. Clark.

SEPTEMBER 22—Care of Children in the Prevention of Tuberculosis, Dr H. T. Gerstenberger.

SEPTEMBER 23—Talk to Mothers About Tuberculosis, Dr Anna K. Scott.

SEPTEMBER 24—Predisposing Causes of Tuberculosis, Dr A. B. Schneider.

SEPTEMBER 25—Tuberculosis as a House Disease, Dr R. T. Lawlor.

By an inspection of the titles of these addresses it will be seen that the subject was presented in all of its important aspects, while the activities of the state and municipality were fully covered. The bearing of the movement for better hours, better conditions of housing and labor, the destruction of sputum, etc., upon the prevalence of the disease was indicated both in the addresses and in the exhibit.

As an integral part of the exhibit an interesting series of photographs, maps and diagrams relating chiefly to the prevalence of tuberculosis in Cleveland and the agencies engaged in combatting it were shown together. This material was collected by those who had been active in preparing for the reception of the exhibit. The place of honor, from the standpoint of general interest, should probably be given a series of portraits of illustrious men and women who were victims of the disease, and another series of individuals who had successfully combatted it. The names of such well known authors, artists and musicians as Keats, Schiller, Bastian LePage, and Chopin appeared in the first series; while Emerson, Ruskin, von Moltke, Tolstoi and Napoleon Bonaparte were among the instances of recovery. A map, showing by pins inserted the work of the Visiting Nurses Association, in 1905 and 1906, indicated the wide distribution of their work in connection with this disease alone. A chart which has excited widespread interest showed how \$70,000 was spent in Cleveland's combat against tuberculosis in the past year; the city administration, the general hospitals, the Tuberculosis Dispensary, the Visiting Nurses Association, the Associated Charities, the Hebrew Relief Association, and the Anti-Tuberculosis League having expended about this sum in the time named.

The work of the Tuberculosis Dispensary was illustrated by photographs and by collections of its blanks and literature. The preventive work of the Milk Fund Association, the Home Gardening Association, Hiram House, Goodrich House, Holy Cross House, Rainbow Cottage, the Fresh Air Camp and other agencies for building up the bodies of debilitated and diseased children was indicated in a series of photographs. The work of a committee of physicians, published in the CLEVELAND MEDICAL JOURNAL in 1903, was reproduced in part in a chart giving an abstract of an article by Drs Darby and Parker, which analyzed a series of autopsies performed in Cleveland Hospitals with reference to tuberculosis, and a series of diagrams showing the frequency of tuberculosis by age.

A pathological exhibit, also a local collection, was installed on the third floor of the building. Tuberculosis was shown in a large number of specimens from the museums of the city, which indicated the effects of its ravages both in human beings and in animals used for food. By the Cleveland Department of Meat and Milk Inspection fresh specimens from the city abattoirs were shown in a glass front refrigerator. This exhibit was installed in an out of the way location to avoid offending any, but, in the opinion of many, its educational value was of such importance that it should have been made more of a feature of the exhibition.

The general exhibition in charts, maps, diagrams, models and pictures may be described roughly as consisting of material which indicated the prevalence of tuberculosis, the economic and social loss it occasions, the conditions which make the soil ready for the reception of the seed, those that tend to disseminate the seed, the methods used in treatment and the results of treatment. This material was furnished by the Associated Charities of Washington, D. C., the Charity Organization Society of New York City, the Consumers League, the Department of Health of New York City, the Chicago Tuberculosis Institute, the Boston Association for the Relief and Control of Tuberculosis and by sanatoria in widely scattered localities, north, east, south and west. The results shown by these institutions, which are carried on under the most varied climatic conditions, forms the basis for a statement which was brought out many times during the exhibition that where tuberculosis exists there it must be treated; that the most favorable climates aid in the treatment of tuberculosis merely by making the treatment a little less rigorous in



certain localities. The great injustice which is done both to patients and localities by the indiscriminate advice "Go West," was also clearly shown in a number of ways. One of these was a letter addressed to New York physicians by the Committee on the Prevention of Tuberculosis of the Charity Organization Society of New York, urging this aspect of the matter upon them, and stating their opinion of the conditions under which patients might be advised to change climate as follows: (a) Patients should not leave the state unless they are physically able to work and have secured in advance a definite assurance of the opportunity to perform work of a proper character at wages sufficient for their proper support. (b) That under other conditions patients should not be sent from the state unless they have their railroad fare and at least \$250.00 in addition.

All in all the exhibition was most interesting and instructive and the frequent informal talks by its manager could not be omitted without greatly lessening the educative value of the exhibit. The public and the profession are certainly indebted to the national organization which collected the material, and to the local organizations which, united under the name of the Anti-Tuberculosis League of Cleveland, have done so much in the past year in the campaign against tuberculosis, and now by bringing this exhibit here have increased their own enthusiasm for the work and infected others with it.

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## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

### Pneumonia:

James M. Anders, in the *Medical Record* for July 7, calls attention to the fresh-air treatment of pneumonia. The vast benefits of admitting fresh air freely to the sick room in cases of pneumonia have attracted the attention recently of a few clinical observers, and in view of the very leading importance of the subject it deserves more extended consideration than it has hitherto received. In combating high temperature in various acute infections, it is recognized that we have an efficient measure in hydrotherapy and also that water at a low temperature produces a decided and decidedly favorable effect upon the nervous system by stimulating the nerve centers which preside over the organic functions. It is by reviewing our knowledge of the influence of hydrotherapy in this class of affections that we can measurably appreciate the value of a cold, dry atmosphere which must exercise an analogous effect. It is found that patients treated with cold air can take more nourishment than those subjected to other methods, and readily assimilate it. Under the influence of low temperature, the

heart's action is slower, and the pulse tension increased, a desirable object to be attained in the treatment of lobar pneumonia. Cold exerts a tonic influence upon the nerves and vessels in the skin, and indirectly it has an important effect in lessening the tendency to internal congestion. Again, cold acts potently in stimulating the respiratory function, and as an immediate consequence, more oxygen is absorbed. He does not advocate the fresh-air treatment to the exclusion of other accepted methods and means in the management of pneumonia, but as a valuable adjunct to what is already known on the subject. His personal knowledge justifies the statement and belief that pneumonia patients are in no danger of contracting a cold from fresh air in the sick room, the mere breathing of fresh air or the flowing of cool air over the face while the patient is confined to bed is practically unattended with risk in this respect. The fresh-air treatment in certain secondary forms of pneumonia might be inadvisable, for example, when pneumonia supervenes in the course of advanced Bright's disease, or in persons with a highly sensitive nervous organization, but in general terms it may be said that this measure is contraindicated, in exceptional instances only. Among its particularly beneficial effects are a better general condition and increased strength, an improved appetite and digestion, refreshing sleep; diminished breathing rate, fever and pulse rate; in short a less marked toxemia than in cases treated by the more usual methods. The nervous system, however, partakes largely in the general favorable effects.

W. T. Waugh, in the same Journal for June 23, advises in pneumonia the use of the active principles aconitin and digitalin. These two agents, in appropriate doses, he believes, fulfill the indication of neutralizing the action of the pneumotoxin upon the circulatory, respiratory, and central nervous systems. By veratrin a further indication is met. This alkaloid in the small doses employed also slows and steadies the heart, directly energizing its muscular fibre, and preventing or relieving its fatigue, it relaxes vascular tension, and powerfully stimulates all the organs by which toxins are eliminated from the body. When the stage of depression has supervened, we still have indications for remedies to sustain cardiac inhibition at the normal standard, but we then face a perilous fall of vascular tension, and an engorgement of the venous system, in which a large proportion of the body's blood-supply is collected. The left heart and the arterial system are practically empty. Here is the indication for strychnin to replace veratrin and we must content ourselves with the knowledge that in the most notable examples of venous paresis, venom-toxemia, strychnin in doses ordinarily lethal will overcome the relaxation, and save life. Therefore, we now push strychnin to the physiologic limit, carefully avoiding such over stimulation as would be followed by exhaustion from irritability and collapse. He states that one of the things it seems the profession will never learn is the direct dependence of a considerable proportion of the fever, headache, muscle- and backache, delirium, restlessness, anorexia, nausea, debility, etc., upon fecal autotoxemia. He emphasizes the imperative necessity of emptying the bowels and disinfecting them, and fulfilling this indication throughout the course of the attack. He also urges the use of saline colonic flushes, to reduce the toxemia to what the forces of the body may be able to overcome.

**Ergot :**

Oliver T. Osborne, in the *New York Medical Journal*, for July 14, thus summarizes the indications which ergot meets. (1) To contract the blood-vessels, raise the blood-pressure, and stimulate the heart in conditions of shock, collapse and circulatory depression. (2) To contract the blood-vessels of the brain and spinal cord, especially of the meninges, when they are acutely inflamed, irritated or congested. (3) To quiet the nerve pains in inflammation and irritation of nerves, and especially if the origin of such irritation is central. (4) To promote activity of the bowels when there is intestinal muscular debility, paresis, or paralysis, as in tympanites after operations, or where there is obstinate constipation. (5) To contract the uterus in uterine hemorrhage. (6) To ameliorate asthma which is due to nervous irritability or reflexes. (7) Also, he believes, to modify or diminish excessive secretion of the thyroid, as occurs in some forms of hysteria and in Graves' disease. (8) To quiet the nervous system and aid in overcoming the morphin, opium, alcohol, or other drug habits and to increase the potency of any dose of morphin that may be required for nerve pain. He has also found it of the greatest value in a case of inveterate diabetes insipidus in a boy ten years of age. The ergot treatment, the amount of which given him was one-half teaspoonful of the best fluid extract, four or five times a day at first, until now he is on one-half teaspoonful twice a day, has caused his headaches to cease, his appetite to improve and he has gained weight wonderfully. The amount of urine is kept down to about five quarts a day, below which he cannot bring it. He shows no symptoms of ergotism.

**Digalen :**

Bernard Kohn, in *American Medicine* for July, believes that digitalis is, and will probably long remain the mainstay of cardiac therapeutics. The principal objections to the use of digitalis are: (1) The great variability in the strength of the crude leaves, amounting sometimes to 400%. (2) The symptoms of local irritation produced by its use. (3) The slowness with which its effects are produced. (4) Its cumulative action. In view of these objections and in a line with modern alkaloidal therapeutics, various attempts have been made to obtain the active principle of digitalis in a therapeutically applicable form. The more important constituents of digitalis are three glucosides, digitalin, digitalein and digitoxin, and he states that digitoxin most nearly represents the action of the drug. Cloetta has prepared an amorphous powder chemically identical with Schmiedeberg's digitoxin, which differs from the latter, however, in being readily soluble, rapid in action, nonirritant, easily diffused, easily eliminated and noncumulative. These properties allow it to be used by mouth, by rectum, hypodermically or intravenously. At present Cloetta's soluble digitoxin is dispensed in a watery solution, containing 20% of glycerin, under the name "digalen." One cubic centimeter (15 minims) of the solution is the average daily dose. When given by the mouth there is a total absence of those gastric disturbances, which so frequently accompany the use of other digitalis preparations. When given subcutaneously there may be a moderate amount of local burning from one to three hours and occasionally some swelling which disappears completely in a few days.



**Echinacea:**

The *Medical World*, for July, calls attention to the value of echinacea. It has been classed by the eclectics as an alterative and an antiseptic; it is both of these and more. It has points of usefulness not in the command of any other alterative, and as an antiseptic it can be employed in more different ways than any other drug employed for a like purpose. Used in the latter way it is employed both internally and externally and the effect is prompt and pleasing. The author of the article knows no other drug or combination of drugs of so great value in blood-poisoning. Whether the septic process be acute or chronic, slowly progressive or fulminant, the beneficial influence of echinacea may be observed soon after its ingestion. In uremia, septicemia, pyemia, septic fever, bites and stings of poisonous insects, poisoned wounds, etc., it is useful. It is now being extensively used among other than eclectic physicians.

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**Iron and Arsenic:**

B. R. Shurly, in the *Journal A. M. A.* for June 16, treats of the use of hypodermic injections of iron and arsenic in pretubercular conditions and associated anemia. We are impressed with the constant attendance of anemic blood changes in cases that show imperfect chest development and continuous loss of weight for which no cause is apparent. It is essentially a danger signal in men of tubercular age. Even the therapeutic nihilist will admit that iron, arsenic and the hypophosphites have a wide field of usefulness, and as these are used hypodermically, the effects are more pronounced, more rapid and more permanent. Wherever iron is indicated, it can be administered in the form of the green ammoniated citrate, while arsenic can be given as the arsenate of soda, or the arsenate of iron. The injections are given deeply into the muscles of the buttocks or back. There is almost no pain attending the operation and in indicated cases the general feeling of well-being which follows the proper dosage allows the treatment to speak for itself. A blood examination should be made, after which punctures may be given daily; an increase of five to 10 percent of hemoglobin a week may be expected. The green ammonio-citrate can be introduced into the system, without danger, in doses ranging from .05 to .1 gram ( $\frac{3}{4}$  grain to  $1\frac{1}{2}$  grains), while the arsenate of soda is given in .001 to .002 gram (1-65 to 1-32 grain). The treatment should be started with the smaller dosage. A full dose of iron by this method produces a reaction within five minutes. A feeling of tension in the head is experienced, the face flushes, and tingling sensations are noticed. There may be waves of nausea or sudden vomiting if a larger dose than  $1\frac{1}{2}$  grains is administered. A full dose gives a sensation of a warm flush or glow over the entire body. The pulse quickens and a general feeling of well-being follows the proper dose. The arsenate shows its usefulness as a general reconstructive and stimulant to nutrition. The hypodermic method obviates all injury to the teeth or stomach and constipation is not produced. It is contraindicated in fever and active hemorrhage.

**Vascular Tension:** Hobart Amory Hare, in the *American Journal of the Medical Sciences*, for August, emphasizes the importance of studying the vascular state and the degree of blood-pressure in respect to the diagnosis, prognosis and treatment in several states of disease. He is convinced that many medical men are still impressed with the idea that a tired heart should be stimulated to greater effort, when in reality it should be given as much rest as possible by diminishing its burden. If we take as an example any one of the grave infectious diseases characterized by toxemia, we find that the heart fails, if it fails at all, as a result of poisoning of its muscle or disorder of its nerve supply arising from the same cause, and against this muscle poison our stimulants do not act as true antagonists. He believes that active cardiac stimulation is often more harmful than advantageous unless we can resort to measures designed to diminish the toxemia and by decreasing the toxemia permit the heart to do its work. A very low tension then means an increased but worthless expenditure of energy and a decreased nutritive supply to the overworked muscle fibers. Fortunately most of the drugs commonly used by physicians under these conditions, are, as a matter of fact, both cardiac and vascular stimulants and so the patient gets the needed vascular effect. It is quite remarkable how competent the heart is to attend to its functions, if the physician is able to overcome vascular relaxation. There are only three drugs which seem to him to be competent for this purpose, namely, atropin, adrenalin and digitalis, and this is the order of their usefulness, for atropin by contracting the great vascular areas of the abdomen raises arterial pressure everywhere, and, according to Hedborn, dilates the coronary vessels and so increases the cardiac blood-supply without directly stimulating the heart muscle to increased endeavor. He also states that three classes of high arterial tension are met with, (1) those in which persistently high tension is the result of spasm due to prolonged nervous stress combined with certain abuses as to habits of life, food and drink; (2) those in which tension is high because, in addition to spasm, there are gradually developing, or have already developed, fibroid changes in the vessels; (3) cases in which after a prolonged period of high tension, there more or less suddenly develops persistent low tension in which the arteries are relaxed and distended, resembling the veins in their calibre and compressibility. In the first and second classes, rest in bed with massage and the nitrites is essential. In the third class, rest in bed is needed also, but vascular stimulants are required. In all these cases the iodids are valuable. Nitro-glycerin will reduce the tension due to spasm, not that due to fibroid change.

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**Mitral Stenosis:** M. Howard Fussell, in the *International Clinics* (Vol. 1, 16th series), emphasizes the fact that not only great hypertrophy and later massive dilatation of the right side of the heart occur in advanced mitral stenosis, but that the right heart is so massive that it completely overshadows the left heart, the apex beat is formed by the right ventricle, the right border of the heart is formed by the right auricle, and the left border by the right ventricle. Recognizing this one can easily comprehend why treatment, especially by drugs, is so

unsatisfactory in mitral stenosis. The lungs are full of blood from the left auricle and later from the right auricle and ventricle, the left auricle is thin and weak. The wonder is not that patients have much dyspnea, but that they are able to live. The evident lesson is that rest is the most essential factor in treatment to give the laboring heart some relaxation.

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**Nutrient Enemata:** The *Therapeutic Gazette*, for July, calls attention to certain conclusions reached by Edsall and Miller concerning the amount of actual nutriment the body absorbed from the intestines of the patient after nutrient enemata. They believe that most of the solids of such an injection remain practically unabsorbed, only the saline constituents being utilized, so that a normal salt solution injected into the rectum would probably do as much good as the various nutrient enemata commonly used. Dr Body and Mr Robertson after recent experiments conclude that, under the most favorable circumstances, it is only possible to introduce into the body by this means about one-quarter of the nourishment required to maintain nutrition. An important point emphasized is that when employed in the treatment of acute gastric diseases nutrient enemata interfere with complete gastric rest, by inducing gastric secretion, and yet do not sufficiently nourish the patient. Given a patient in poor condition the enema cannot be relied on to produce any material improvement in condition. If the physician desires to make use of rectal feeding, it seems that the best results will be got from the carbohydrates and fat. The absorption of proteid food from the bowel is so small as to make it of little value as a food stuff. In regard to carbohydrates pure dextrose was used, and gave most excellent results. In all cases it was well absorbed, and produced no ill effects, such as bowel irritation or alimentary glycosuria. In another case the caloric value of the food stuff absorbed was raised to 500 calories by increasing the quantity of sugar. Fat is undoubtedly best given in the natural state, as in the yolk of egg. For practical purposes a good nutrient enema consists of the yolks of two eggs, 30 grams of pure dextrose, five grams of common salt, and pancreatized milk to make 300 cubic centimeters. Nutrient enemata should never be administered with a syringe. To place a syringe in the hands of a nurse is to court failure. Substances rapidly injected into the bowel will be as promptly returned. The enema should be very slowly siphoned in by means of a soft rubber catheter, and a small sized filter funnel. Retention of the nutrient material is not then a matter of difficulty. If there be bowel irritability, a small dose of morphin may be added to the injection. The daily cleansing of the bowel with a saline injection is of course an absolute necessity. The amount of the nutrient injection commonly used is from four to six ounces, though if given slowly eight to 10 ounces can be retained.

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**Pneumonia:** In the *Archives of Physiological Therapy*, for July, Clarence E. Skinner advises the use of dry hot air in pneumonia. He was first led to employ it in the treatment of pneumonia by the magical results which followed its use in a case of peritonitis, and the outcome far surpassed his expectations. He summarizes its actions as, first, relief of the pleuritic pain in a few minutes,



which relief lasts for from one to eight hours, and disappearance of the pleurisy itself in from 24 to 48 hours; second, immediate relief of that portion of the cough and respiratory acceleration which is due to pleurisy; third, a decrease in the febrile movement of from half a degree to one degree Fahrenheit, within eight hours, and an immediate improvement in the patient's general condition; fourth, disappearance of the physical signs of consolidation in from two to five days; fifth, a marked lessening in the severity of the symptomatology, but little, if any, shortening of the duration of the disease. As regards apparatus, any make that is portable and capable of generating a heat of 350 Fahrenheit in 20 minutes, and maintaining it there, is practical, and therapeutically efficient. In pneumonia there will be difficulty in maintaining the treatment for the duration of an hour as the keeping of the proper position of the patient for so long a time will prove harassing and exhausting to the patient. A treatment of less than half an hour, however, will prove ineffective for the production of satisfactory results. The treatment should be repeated every 12 hours at a temperature of from 350 to 400 Fahrenheit.

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### Academy of Medicine of Cleveland

The fortieth regular meeting of the Academy was held at 8 p. m., Friday, Sept. 21st, 1906, in the Assembly Room, Hollenden Hotel. Program: "Concerning some Newer Conceptions of the Nature, Causes, Symptomatology and Treatment of Bright's Disease," Alfred C. Croftan, M. D., Chicago, Ill.; Discussion opened by Dr C. F. Hoover.

Clyde E. Ford, M. D., Secretary.

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### St. Alexis Hospital Alumni Association

The forty-fourth regular monthly meeting of the St. Alexis Alumni Association was held at The Hollenden on Thursday, September 6th, 1906, at 8:30 p. m. Program: "Original Ideal Bandage for the Relief of Varicose Veins," Thomas J. Calkins, M. D.; "Report of the Meeting of the British Medical Association, Toronto, August 21st-25th," Myron Metzenbaum, M. D.; "Report of Case of Intracapsular Fracture of the Femur," C. E. Corlett, M. D.

MYRON METZENBAUM, M. D.,  
1242 Willson Ave., Secretary.

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### Ohio State Pediatric Society

INCOMPLETE PROGRAM OF MEETING TO BE HELD IN YOUNGSTOWN, DECEMBER 5.

"The Pediatrist," W. W. Pennell, Mt. Vernon; "The Infant and the State," T. Clarke Miller, Massillon; "Appendicitis in Children," A. F. House, Cleveland; "Medical Treatment of Appendicitis," J. Morton Howells, Dayton; "Surgical Treatment of Empyema," S. W. Kelley, Cleveland; "The Second Summer," C. L. Patterson, Dayton; "Therapeutic Memoranda," E. W. Mitchell, Cincinnati; "Tubercular Glands of the Neck," Wm. Clarke, Cleveland; "The Demand for Medical Inspection of Schools," J. F. Lorimer, Chillicothe; "Indigestion in Children," J. Dudley Dunham, Columbus; "Enteralgia," S. P. Wise, Millersburgh; "Address," Wm. C. Hollopeter, Philadelphia, Pa.

## Book Reviews

Osborne's Introduction to Materia Medica and Pharmacology. An introduction to the study of Materia Medica and Pharmacology, including the Elements of Medical Pharmacy, Prescription Writing, Medical Latin, Toxicology and Methods of Local Treatment. For the use of Students of Medicine and Pharmacy. By Oliver T. Osborne, A. M., M. D., Professor of Materia Medica, Therapeutics and Clinical Medicine in Yale University, ex-President of the American Therapeutic Association, etc. In one 12mo volume of 167 pages. Cloth, \$1.00, *net*. Lea Brothers Co., Publishers, Philadelphia and New York, 1906.

This little work fills admirably its object of introducing the student to those studies preparing him for the treatment of the sick. The chapter on the classification of drugs based on their therapeutic indication is a convenient and accurate summary and will prove a practical aid to the student. Prescription writing is quite thoroughly treated, both the old and new systems being exemplified. The book presents much information in a small space and is to be recommended as a helpful work for the student.

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A Compend of Materia Medica, Therapeutics and Prescription Writing with especial reference to the physiological action of drugs, based on the eighth revision of The U. S. Pharmacopoea, including also many unofficial remedies, by Samuel O. L. Potter, M. D., M. R. C. P., Lond. Formerly Professor of the Principles and Practice of Medicine in the Cooper Medical College of San Francisco; author of "Materia Medica, Pharmacy, and Therapeutics," "Quiz-Compend of Anatomy," "Index of Comparative Therapeutics," and "Speech and Its Defects;" late Major and Surgeon of Volunteers, U. C. Army. Seventh Edition, revised and enlarged. P. Blakiston's Son & Co.

This, the seventh, edition of this work embodies the essentials of Materia Medica and Therapeutics and is in accordance with the recent revision of the Pharmacopoea. Sixteen articles have been rewritten and 12 new ones added, as well as 43 new paragraphs on important drugs, and this edition contains 37 pages more than the preceding one. The book is one of the best of its class.

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Bovée's Gynecology. The Practice of Gynecology by Eminent Authorities, edited by J. Wesley Bovée, M. D., Professor of Gynecology in George Washington University, Washington, D. C. In one very handsome octavo volume, containing 838 pages, with 382 engravings and 60 full page plates in colors and mono-chrome. Cloth, \$6.00, *net*; leather, \$7.00, *net*; half morocco, \$8.00, *net*. Lea Brothers & Co., Publishers, Philadelphia and New York, 1906.

A new departure has been made in the presentation of the subject in this volume by including diseases of the kidneys and rectum. This seems only reasonable as they are so frequently involved in gynecologic troubles. There are already such a large number of text-books upon this subject that a new one must possess decided merit to compete with those already in the field. This work should hold its own without difficulty. The subject matter has been divided among seven contributors, each of whom is a recognized leader in his special line of work. By this plan it

was hoped that a broader view of gynecology could be gained, than if but one author had written the whole. There is a profusion of illustrations, many of which, on account of their clearness, have been selected from other works, and the book is certainly a credit to those who have produced it.

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### Books Received

The Practical Medicine Series, ten volumes, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, Volume IV, Gynecology, edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago; and C. von Bachel, M. S., M. D., Gynecologist to the German Hospital, Chicago. Series 1906. Year Book Pub.

The Practical Medicine Series, ten volumes, Gustavus P. Head, M. D., Volume V, Obstetrics, edited by Joseph B. DeLee, A. M., M. D., Professor of Obstetrics, Northwestern University Medical School, with the collaboration of D. Roehler, M. D., and Herbert M. Stows, M. D. Series 1906. Year Book Publishers.

The Practical Medicine Series, ten volumes, under the general editorial charge of Gustavus P. Head, M. D., Volume VI, General Medicine, Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, M. D., Professor of Medicine, Chicago Clinical School. Series 1906. Year Book Publishers.

A Manual of Otology, by Gorham Bacon, A. B., M. D., Professor of Otology in the College of Physicians and Surgeons, Columbia University, New York; Aural Surgeon, New York Eye and Ear Infirmary. Introductory chapter by Clarence John Blake, M. D., Professor of Otology in Harvard University. Fourth edition, Revised and enlarged. 134 illustrations and 11 plates. Lea Brothers & Co.

Chemistry: General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia. A Manual of the Science of Chemistry and its Applications to Medicine and Pharmacy. By John Attfield, F. R. S., M. A., Ph. D., F. C. S., etc., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. New (19th) edition, specially revised by the Author to accord with the New U. S. Pharmacopœia, edited by Leonard Dobbin, Ph. D., F. I. C., etc., Lecturer on Chemistry in the University of Edinburgh, etc. 12mo., 760 pages, illustrated. Price: cloth, \$2.50, net. Lea Brothers & Co., Philadelphia and New York, 1906.

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### Medical News

E. W. Dickey, of Philadelphia, Pa., is now located in Massillon, O.

G. A. Harman, of Lancaster, is at home again after a three weeks' trip.

H. M. Moore and wife, of Oxford, have returned from a month's trip on the lakes.

R. N. Leonard, of Bellevue, who has been enjoying a trip up the lakes, has returned.

W. E. Park and wife, of Oberlin, have returned from a month's absence on an eastern trip.

F. C. Goodwin and wife, of Portsmouth, have arrived home after a month's vacation in Indiana.



L. A. Crawford, of Alliance, has been appointed examining surgeon for the United States Marine Corps.

Dudley P. Allen, of Cleveland, who spent the summer in Canada, returned about the middle of September.

A. Jacobi will deliver the formal address at the opening of the new Medical Library Building, on October 18th.

Frank Hahn and wife, recently visited Dr and Mrs. Axby, of Harrison, and decided that they would locate there.

W. J. Zopfi, of Findlay, recently took a three weeks trip extending through the states of New York and Pennsylvania.

Dr Peppard, of Mansfield, recently took a ten days' hunting and automobile trip through the western part of the state.

J. L. Hondorf, formerly of Rochester, N. Y., and who spent the last year at Huron Street Hospital, has now located at Ravenna, O.

D. G. Palmer, of Geneva, is confined to his home by a severe illness and Dr Dixon, of Ashtabula, is attending the case with local physicians.

T. M. Taylor, an instructor of chemistry in Oberlin College, has accepted a position with the Carnegie Technical Schools of Pittsburgh.

Dr Lower, of Bakersville, moved his family to Coshocton recently, and as soon as he can get another doctor to take his place, he will join them.

U. K. Essington, who is taking a special course in medicine in Chicago, will locate permanently at Newark when through with at Chicago.

L. G. Locke, formerly of Haverhill, who has been taking a post graduate course in medicine in New York, has decided to locate in Portsmouth.

E. J. March, of Canton, who has been doing post graduate work in diseases of women in the large hospitals of London, Vienna, Berlin, Berne and Paris, has returned.

H. R. Brownlee, Hough Ave., who was operated on for appendicitis on his return from a five weeks stay in Canada, has fully recovered and is taking care of his practice again.

Amos B. Sherk has sold his practice at Rawson to Dr Cole, and in turn has purchased the practice of Dr Powell, at Bairdstown, the latter gentleman locating at North Baltimore.

H. C. Aurand, of Bellevue, is in New York City taking a special post graduate course in medicine and surgery at Bellevue Hospital. He will be absent eight or ten weeks and Dr Morrow will look after his patients during his absence.

The seventh session of the Ashland County Medical Society held its regular meeting at the council chamber, Tuesday, September 4th, at one o'clock p. m. T. Clark Miller, who is the councilor of the sixth medical district with residence at Massillon, read a paper on "Puerperal Eclampsia." As Dr Miller had made a special study of this subject his remarks were listened to with attention as was also the excellent paper by Dr Fridline on "Typhoid Fever and its Treatment." The opening up of these subjects led to a free discussion on both papers by all the members present. Dr Wirt, of Loudonville, was expected to read a paper but was unavoidably absent. The next meeting will occur on November sixth at one o'clock p. m., of which due notice will be given to every physician in the county. It is expected we will be able to have with us a specialist from Cleveland on that date. Those present were Drs Sherrick, Kinnaman, Powell, Fridline, Emery, Cowan, Dotterweich, Hunter and McClellan. Out of town member in attendance Dr Hutchison, of Mifflin.

A joint meeting of the Erie, Ottawa, Sandusky, Huron, Seneca and Lorain County Medical Societies was held at Cedar Point, September 5.

Two sessions were held, one in the forenoon and the other in the afternoon. The forenoon session was called to order at 10:30 o'clock. The numbers for this session were: Address, "A United Profession," by R. B. McClelland of Xenia, O., president of the Ohio State Medical Association; address, "Best Ways to Strengthen County Societies," Brooks F. Beebe, Cincinnati, chairman of the council; discussion by councillors and the county officers. After luncheon, the afternoon session was called to order at 1 p. m. The events for this session were: "Trachoma," E. H. Porter, Tiffin; "Treatment of Insane, Past and Present," A. J. McNamara, Lorain; Discussion. "Complications in Convalescence After Coeliotomy," Chas. Graefe, Sandusky; Discussion. The Erie County Medical Society has named the following committees: Censors, J. T. Haynes, M. J. Love and William Storey; Reception committee, A. F. Cook, C. B. Bliss, W. H. Busch, J. P. Esch, Wm. Graefe and S. Gorsuch; Entertainment committee, C. H. Merz, W. D. Hoyer, H. D. Peterson, W. H. Pollock, H. C. Schoepfle and P. F. Southwick. The officers of the Association are: Charles Graefe, president; C. C. Davis, secretary. A meeting of the State Council was held September 4th, at the Breakers at Cedar Point.

The thirtieth session of Lake County Medical Society was held on Monday evening, September 3, with the following present: Drs E. B. Root, C. F. House, and C. M. Hawley of Painesville; Dr C. H. Quayle of Madison; Dr H. E. York of Fairport, and Dr J. W. Lowe of Mentor. The names of Dr Geo. H. Wilson of Painesville, and W. Snerer of Madison, as applicants for membership, were considered and accepted. Dr Henry A. Becker, one of the surgeons of Lakeside Hospital, and consulting surgeon of the Painesville Hospital, being present as the guest of the society for the evening, was formally introduced and presented the subject of "Breast Surgery." He showed conclusively by statistics and other evidence that carcinoma, or cancer of the breast, should receive early attention in a surgical way, that by so doing life in many cases may be prolonged. Nothing in medicine has yet been discovered to cure this terrible malady. Surgery seems to promise most this far. A brief discussion followed after which a vote of thanks was tendered Dr Becker for his instructive presentation of the subject. Dr Hawley, as chairman of the committee on hospital work, reported the appointment of physicians for the hospital for the first six months, commencing August 1. On motion the same was approved. The matter of a place for meeting was not taken up and decided that the October meeting be held in the assembly room of the Parmly Hotel, this point being the most convenient. A report was received from the joint meeting and annual banquet at Ashtabula county last month and a vote of thanks extended to the members of the profession in that county for their generous hospitality on that occasion.

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## Deaths

Henry C. Thatcher, died at his home in Youngstown, September 2nd.

James Gillard, at one time a practising physician of Oak Harbor, died in Sandusky in August.

E. J. Goodsell, of Norwalk, died at Lakeside Hospital on September 20, of acute appendicitis.

A. R. Aug, a prominent physician of Martin's Ferry, died at his home September 22nd, of heart failure.

James F. Kelly, of this city, the former assistant superintendent of the Cleveland State Hospital, died suddenly in New York City, September 4.

Joseph McElhinney, of Newport, one of the oldest and best known practitioners of Washington County, died September 3rd, after an illness of six months duration.

# The Cleveland Medical Journal

VOL V

NOVEMBER, 1906

No 11

## Some of the Benefits derived from Medical Libraries

By A. JACOBI, M. D., LL. D., New York.

Oliver Wendell Holmes, whom you will recognize without my adding the M. D. to his name, expressed himself as follows before the Medical Library Association of Boston in 1878: "A great many books may be found in every large collection which remind us of those Apostolic looking old men who figure on the platform at our political and other assemblages. Some of them have spoken words of wisdom in their day, but they have ceased to be oracles. Some of them never had any particularly important message for humanity, but they add dignity to the meeting by their presence. They look wise whether they are so or not, and no one grudges them their place of honor. Venerable figure heads, what would our platforms be without you?"

Gentlemen, ask Dr Dudley Allen for an answer. It is he that is my reason for being here and my opportunity to address you. He permitted me to be present at the inauguration of your new library building. Every new library has always engaged my interest; mostly so every medical library. Personal experience of decades ago has added to it. In 1875 I went to Europe for the special purpose of consulting large collections in behalf of a booklet I had promised to write. I settled in small University towns of Switzerland and Western Germany. After spending several months in vain, both their collections and their reading rooms being quite unsatisfactory, I returned to my own bookshelves and the books collected by the New York Medical Journal Association which furnished a richer harvest.

The Medical Journal Association of New York was formed 40 years ago when there was no public medical library in New York City. The New York Academy of Medicine had existed



20 years without any. It counted dozens of old, and famous, and learned men amongst its members, but it was the young element that—helped along by the enthusiastic bibliophile Dr Purple, by John C. Peters, and others—finally fitted up a reading room in No. 64 Madison avenue. Many journals were taken. Several years afterward the library thus originated was given to the Academy of Medicine, which at that time had its own building in No. 12 West 31st street. These small beginnings created, with slow progress, a large library, now for many years alongside the rapidly growing and richly endowed Boston Library, the largest in the country, except that of the Surgeon General's office in Washington. It contains today 70,840 books and 27,080 pamphlets. It would carry me too far to tell you the particulars of our growth. Both professional men and the public have contributed to making the library what it is today. A lady who had aided us in creating our new building 17 years ago, gave us \$15,000 for our library fund to enable us to purchase new books—claiming that of all her public donations none had given her the same persistent satisfaction that she derived from her gifts to the Academy of Medicine. I cannot but bespeak for the medical profession of Cleveland—admired for its ethical standing and its contributions to sound practice and to the literary advancement of the country—the same generosity on the part of the public.

A large medical library, besides being the proof of existing culture and of accumulated intellectual labor, fulfills its destiny by giving information. Here the medical man with scanty means will find his text-books and monographs to aid him in unravelling the difficulties of a case on hand. He who has an ample library of his own, will consult rare books, old journals, expensive works. Here a vast number of journals may be consulted from day to day; here those who are engaged in literary pursuits find their historical records. Moreover, and that is a point upon which I cannot insist too much, a library causes the inculcation in a great many of the habit of study and research. Here, as always, opportunity creates demand. In that result the public is as much interested as is the profession. The safety of the public requires cultured and erudite physicians. Both the ethical and the intellectual standard of both parties will stand or grow or fall together.

The origin and brief history of medical libraries appears to have been the same at all times.

From Dr John Morgan's "Discourse upon the Institution of Medical Schools in America," delivered 1765, I quote, according to an address by Dr Osler before the Association of Medical Librarians in 1902, the following extract:

"Perhaps the physicians of this Association, touched with generous sentiments of regard for the rising generation and the manifest advantages accruing to the College thereby, would spare some useful books or contribute somewhat as a foundation on which we might begin."

That appeal sounds pitiful, *is* pitiful; still it had to be made hundreds of times, and *should* be made wherever the means of professional men are too scanty to establish a library.

Few physicians are in a position to purchase many books; no one has a complete library, not even a specialist may have all the books and journals of his branch of study and practice. That was different one hundred years ago, when the United States had three medical journals: the *Medical Repository* from July 26, 1797, to 1824; the *Philadelphia Medical and Physical Journal* from November 1, 1804, to May, 1809; and the *Medical and Agricultural Magazine* for the year 1806-7, of which only one volume appeared; Great Britain published seven. A well-to-do physician might have bought them all,—but at present? The New York Academy of Medicine takes more than a thousand. If you individually take as many journals as you wish to have handy, your shelf room fails you. Many years ago I erected an addition to my library and piled up books in double rows. Many times, however, when I required one, it was easier to send for it from the public library than to climb up and search it out. When I changed my residence years ago I had to give away 5,000 volumes and learned the lesson of disposing of my possessions to my own convenience and in the common interest. A public library of 100,000 volumes makes every medical man of the neighborhood practically the owner of 100,000 volumes. By giving away you enrich a hundred or a thousand men without impoverishing yourself. No matter, however, where the library came from, by using it, you and the other men become intellectual and professional twin-brothers. Twenty men working in silence in a library grow in respect for each other, in ethical feeling, in professional brotherhood.

Even the smallest library in a county seat has a similar effect. Indeed, a book *is* society, even in a poor doctor's office; often the society of a peer, frequently of a superior man. A

dozen good books is a companionship of twelve. Those who live alone and practice alone in the country, know that better than we appreciate it. They meet their colleagues rarely, their country societies meet once every two, or three or six months—or not at all. But in a book they may carry a friend on the saddlebag, in the buggy; and in the smallest library of a county society they have as many friends as they can take home with them and give hospitality to.

I am connected with the Association of Medical Librarians and am fully acquainted with the book hunger mainly of those who for the present have to be satisfied with small collections. This book hunger and book appreciation is not, however, a feature of our modern era only. Books and libraries have always been held in high esteem and great influence has always been attributed to them. Assurbanipal, sometimes called Sardanapal, the son of Sanherib, who, in 701 B. C. subdued Hiskias the King of Juda, founded in 670 B. C. a school and the Kujundschik Library in Nineveh, for no other purpose but to break up the influence of the learned and teaching clergy of Babylon, and succeeded until Kyaxares the Mede destroyed Nineveh in 606. Since Layard's time, about 20,000 inscribed tiles, part of that Assyrian library, have been stored in the British Museum. The Egyptians had two large libraries at Memphis before Ptolemy Philadelphus established one in Alexandria, which is said to have contained 700,000 books—that means rolls. It was burned by Julius Caesar in the war of 48 and 47. To repair the damage, Anthony gave to Kleopatra the big library stolen at the conquest of Pergamom—so we are told by Plutarch. Alexandria had a second library of 42,000 books, destined for the purpose of instructing students in the temple of Serapis. It survived until the time of Theodosius the Great and was burned, not by the Mohammedan Omar in 641, but by the Christians under Archbishop Theophilus. Books were always amongst the things robbed, like objects of art pillaged all over Europe by Napoleon.

Pisistratus founded a large library in Athens; Xerxes stole it and took it to Persia, whence it was returned by Seleucus Nicator. Rome exhibits a similar history. Aemilius Paulus brought a library from Greece, the first large one Rome ever had, in 168 B. C., and Sulla added to it from trophies of war. Lucullus robbed another and kept it open to the public. Caesar planned one but did not succeed; that of Alexandria he had burned, and the illiterate Gauls did their writing with swords, clubs, and



rocks. Under Augustus, Rome had two large libraries. One existed until the reign of the great pope Gregor, who destroyed the books of the ancients because they were heathenish. That Nero burned several, goes without saying. The largest was founded by Ulpian Trajanus—about his time populous cities took a pride in collecting books. The library founded in Byzantium by Constantius was destroyed by the emperor Leo. The migrations of armed nations of the early mediæval period destroyed men, women, children, fields and towns, and books. During that period there was nobody to care for books except the Mohammedans and the Benedictine monks. Thus it is no wonder that ancient literature is scanty—indeed it is almost miraculous that so much is left, particularly when we remember that the rolls of papyrus were very perishable. Pliny tells us that the life of a roll of papyrus—parchment manuscripts were scarce—amounted to 100 years, and those lasting 200 years were extremely rare.

You will have recent and old books in your library. Why old ones? Let me here quote Holmes, in whose company I like to move always, even when he is mistaken—as for instance in his witty criticism of therapeutics. He has sinned so little, however, that he may be forgiven. He says:

“There is true pleasure in reading the accounts of great discoveries in the own words of the author. I do not pretend to hoist up the *Bibliotheca Anatomica* of Mangetus and spread it on my table every day. I do not get out my great Albinus before every lecture on the muscles or disturb the majestic repose of Vesalius every time I speak of the bones he has so admirably described and figured; but it does please me to read the first descriptions of parts to which the names of their discoverers have become so joined that not even modern science can part them; to listen to the talk of my old volume, as Willis describes his circle, and Fallopius his aqueduct, and Varolius his bridge, and Eustachius his tube, and Monro his foramen. . . . I am not content until I know in what language Harvey announced his discovery of the circulation, and how Spigelius made the liver his perpetual memorial, and Malpighi found a monument more enduring than brass in the corpuscles of the spleen and the kidney.”

“There are practical books among these ancient volumes which can never grow old. Would you know how to recognize a ‘male hysteria,’ and to treat it?—take down your Sydenham. Would you read the experience of a physician who was himself

the subject of asthma and who, in the words of Dr Johnson, "panted on till ninety"—you will find it in the venerable treatise of Sir John Floyer. Would you listen to the story of the King's Evil cured by the royal touch?—go to Wiseman." (Just now I should say go to the learned papers on the same subject published a few months ago in *American Medicine* by Dr John Knott, of Dublin. "Would you get at first hand the description of the spinal diseases—which long bore his name—go to Percival Pott, the great surgeon of the Eighteenth Century."

Great pleasure is in this. But to consult old books gives us more than a literary or an ethical satisfaction. The study of old literature teaches us many things:

(1) They knew things.

(2) If they had been remembered much labor would have been saved.

(3) They would teach us modesty, proving that much that is called "new" is very old indeed.

(4) They would give us respect for our ancestors and predecessors.

(5) It makes us respect our race of all ages, and appreciate the slow but steady progress to which 1000 men contributed almost everything, and we only a mite.

Let me give you a few fragments of ancient medicine. You will find much in it that you have considered modern. You will have to excuse, however, the fragmentary character of all my tales. My first reminiscence concerns hydrotherapy.

Musa has become immortal by his success in treating two patients. One was the Emperor Augustus, who recovered from what appears to have been a chronic disease of the liver after the irritating methods of his physicians, under a cold water treatment. The doctor was paid what in the old world was considered royal—obtained the permission to wear a gold ring indicating his knighthood, and a monument was erected to him in the Temple of Aesculapius—while he was alive. But Augustus is dead, like a million other kings, as they should be, the ring has gone, the monument and the temple of Aesculapius have disappeared, and Doctor Musa would not be remembered but for his other patient, Horatius Flaccus, who dedicated to him immortal verses. Such is the difference between kings and poets. Perhaps there is some other point of resemblance between those times and ours. A nephew of Augustus, Marcellus, the son of his sister Octavia, was taken sick and Dr Musa's colleagues said

he had killed him with cold water. You see then as now there were doctors and doctors. The fact is that Marcellus died in the warm springs of Bajae.

Aulus Cornelius Celsus wrote long chapters on the use of cold water as an article of diet and of therapeutics in all sorts of internal and external diseases. Of all its administrations he uses bathing and drinking more than affusions and immersions—in torpid digestion, constipation, vomiting, fevers, diarrhea, internal suppurations, bloody expectorations, dysentery, and inflammation of the lungs. He recommends cold water in sun stroke, sore eyes, headaches, joint inflammations, hysteria, dysmenorrhea; sudden immersion after the bite of a rabid dog, and in hydrophobia—evidently he knows the cases of hysteric disturbances simulating the genuine disease. His directions are very explicit and are more accurate than anything to be found in other authors. *But* to him, and to most ancients, the prevention of disease was of greater importance than the cure, and water was used both for *that* purpose and as an adjuvant to drug medication.

Galen was the most learned and original of all the physicians of the first centuries after Christ. He combined the teachings of Hippokrates with the principles of the philosophical systems of Plato and Aristotle, and added to them what his anatomical studies and clinical experience taught him. Dietetics and regular bathing he taught for both their preventive and curative properties. He distinguished them from exaggerated gymnastics which he abhorred as improper before the twenty-first year of life. His teaching would be declared modern if he lived today. He forbade the bathing of the newly-born in cold water—a habit adopted from the ruddy Germans, who always proved the strongest, most heroic, and gigantic enemies of the Romans. The modern methods of cold, warm, and hot bathing, friction, applications, and drinking are accurately described. Steam baths, hot air baths, sun and sand baths, sulphur, iron, and vegetable baths, even local steam-baths were in frequent use; and Pliny tells us that mud—our modern fango—was much employed. Antyllus and Cælius Aurelianus were his immediate successors, and Oribasius, the learned physician of the Emperor Julian, whom the constantly fighting and degenerate Christians called Apostata, has the following remark: “The water thrown over the body after a bath should be warm in the cases of feeble persons. But the strong and healthy tumble into cold water after a warm bath.”



Aëtius, Alexander Trallianus, and Paulus Aegineta express themselves similarly.

After all when—or if—this library of yours will contain a Galen, I advise the study of *modern* hydrotherapy in these *old* books. They are not yet 2000 years old, and contain many teachings that had to be rediscovered in the nineteenth century by those who never cared for what had gone before and scanned only the horizon confined between their mental blinders.

According to Galen the causes of ill-health and death are of two kinds: some, inevitable, as for instance, old age; others avoidable. It is the duty of the physician, in order to enhance the power of resistance, to insist upon a rational mode of living. Besides, he teaches the obligation to watch over the character of the *young* patients and to prepare them for good citizenship. It is worth while to remember that in the best known peoples of antiquity, medicine and dietetics were intimately connected with rules enjoined by ethics, social institutions, or religion. Moses is an example, and Plato, Aristotle, Erasistratos, and ever so many others give the same rules as Galen. Thus it happened that the function of the physician was more sacred and more revered than it is in modern times. It is only slowly that we, American physicians, acquire a certain dignity as sanitarians; as a rule we count for less than a chemist; and in the courts of justice our fellows appear to strive hard to render medical science and judgment ridiculous,—very much more so than in Europe, with its older experience and less haphazardism. In general, however, Socrates, the wisest man Hellas boasted of—that is why they killed him—proclaimed that the direction of the commonwealth should be entrusted to the physician. In more modern times it takes the very prominent minds to express the same opinion, for instance, Kant and Gladstone. Still I do not know how long it will take us, American physicians, to appreciate our obligations, not only to individual patients or to our hospital wards, but to the commonwealth at large. In Europe, mainly in France, Italy, and Germany, physicians in high standing take prominent seats in the parliaments and in the councils of the state; we, however, participate but rarely in the fulfillment of the simplest duties imposed by the mere fact of citizenship at a time when civilization—as it does at present—exhibits the first symptoms of decay, such as prevailed when the Roman Republic degraded into a Roman imperium. I would ask those who know, how many of you take the time or have the condescension just to vote?

The study of Galen and the extracts from his writings furnished by Oribasius are very instructive. It is true some of his teaching—referring for instance to the viability of the newly-born or to teething—are as full of prejudices as the present popular opinions which a few dozen years ago were still shared by the practitioners of medicine. The brain of hares and the milk of dogs, when applied to the gums, were as effective as they proved to be in the nineteenth century. Other passages and chapters are modern. He prefers the breastmilk sucked by the infant to that which is pumped out and fed. You see, his clinical observation taught him what only a few years ago we learned how to explain by our bacteriological knowledge. Of the requisites of a good wet nurse, of the influence of food on her milk, he was as well informed as the hundreds of modern articles that fill our journals. It must have struck you that many of them are the legitimate offspring of ignorance or naiveté; for there *are* those who as soon as they learn patent facts which *they* never knew before are benevolent enough to publish their newly acquired knowledge; and when they quote at all, they cite last year's productions of a friend. Commonplace facts are seriously presented under the writer's name, which henceforth become a part of overstocked literature. What you find in such essays—remarks on the baby's bedding, cleanliness, bathing, abstinence from alcohol—you may find in Galen, Soranus and others. How much labor could be saved to the individual student—and time husbanded for better work—is known only to those who study the history of their science and art.

Nor is Galen defective in pathology. He describes the aura rising from the tibia in an epileptic boy, and gives ample directions as to the treatment of the disease. Noma is pictured in all its horrible details, though under the heading of "aphthae," a term which even today—for example, in connection with the name of Bednar—is used incorrectly. He knows the fact that urinary calculi are more frequent in boys than in girls, distinguishes three kinds of intestinal worms, operated successfully on a bad case of caries of the sternum, and studied the changes of the umbilicus with the eyes of a modern pathologist.

I said before that with the old oriental nations dietetics was a part of preventive medicine. The Greeks and Romans looked to it as a means of hardening and strengthening. That was the object of Minos in Crete, and of Lykurgos in Sparta. "The mind of a philosopher in the body of an athlete" was the aim of Solon

of Athens. Plato and Aristotle follow him in many of his methods. Pythagoras combined many of his Greek impressions with what he had learned in his extensive Egyptian and Persian travels, and preached the gospel of moderation and temperance. Alcohol was prohibited, or its use limited—no wine being taken unless diluted. Drunkenness was an ignominious habit. In the first book of the Iliad, Achilles calls Agamemnon a “drunkard with the eyes of a dog and the courage of a deer.” While the Roman Republic was made up of Republicans no Roman—so Aelian (*Var. histor.*) tells us—ever drank wine before he was 35 years old; a Roman woman, never in her life. That was while Rome was a Republic, with republican habits. When they ceased, the Republic was doomed. Our dear Union, the country of the brave and the free, has often been called a modern Rome. We are still a Republic.

Dietetics and hygiene were strictly matters belonging to the state and commonwealth until Hippokrates made them individual and a part of medicine purely, and substituted the physician for the legislator. To extract him or even to characterize him fully, is impossible at this occasion. Much of what he has left for us is the result of unbiassed experience and philosophical reasoning. Amongst his instructions is one that we are taught in our daily observations. It is as follows: “Too little food is as dangerous in diseases as too much. Total and sudden abstinence from food is very injurious. Fluid and mild food is adapted to all feverish diseases.”

I shall now thank you, for following me into the history antedating the astounding, almost staggering, apparently sudden progress our therapy has achieved within a few years. The serotherapy mainly of diphtheria has come upon us as almost a miraculous revelation, and filled our mental horizon with blissful expectations of more wonders. After all, however, this modern achievement is no Pallas Athene that, lo and behold, sprang armor-clad from the brow of Jupiter.

Antitoxic therapy has a history of several thousand years. What we know of it now is the result of a slow evolution. The methods employed either correctly or incorrectly to immunize the human body against poisons or to cure those who are poisoned, are of ancient date. Lucanus tells of the immunization practiced by African nations against serpent venom since immemorial times; the inoculation of variola was practiced several thousand years B. C. by East Indians and Chinese. The protective power



of vaccine was known and employed before Jenner in England, Germany, Persia, and Mexico. The amulets worn by Pericles, and those worn by many during mediæval times, contained mostly poisonous substances calculated to ward off animal poisons and infectious diseases. Mithridates, the king of Pontus, was in constant danger and fear of poisoning. So he prepared antidotes out of many species of blood ("antidotum e sanguinibus"), so Paulus Aegineta says (*de re medica* VII. cap. XI). Pliny tells us that he mixed with other poisons the blood of ducks fed on poisonous substances (*lib. XXV. cap. III*). Avicenna recommends the mouse which without injury eats aconitum napellus, for its curative action in poisoning with that plant. Storks, toads, frogs, deer—that either have a great immunity or kill serpents—served the same purpose. Pliny recommends against the bite of serpents the local application of the bile of a poisonous reptile, or the lung of a mashed one. The blood of a cat, an animal which among the ancient Germans was reputed to have some mystic properties, was used against rheumatism and gout; its fur is credited with the extraordinary functions even at present. The blood of sexually immaculate children and virgins cured lepra. Menstrual blood, according to Pliny, procures abortion. Blood of oxen in general was dangerous. The same author tells that when taken fresh it is poisonous except in Egira where the prophesying priestess drinks it before descending into her cavern. Herodotos reports that Kambyzes killed Psammenit by that method, and Themistokles destroyed himself, when he feared he would be compelled to fight against his compatriots—the Greeks—whom, like a noble citizen, he loved though they had exiled him.

In some quarters the influence of fresh air and the scent of books is credited with antitoxic properties. I read in the first chapters of the *Ecclesiastical History of the English Nation*, by Beda Venerabilis—the Venerable Bede—the following: "In Ireland no reptiles are found—(you remember this was in the Eighth Century A. D.)—and no snakes can live there; for though often carried thither out of Britain, as soon as the ship comes near the shore and the scent of the air reaches them, they die. On the contrary, almost all things in the island are good against poison. In short we have known that when some persons had been bitten by serpents, the scrapings of leaves of books that were brought out of Ireland, being put into water and given them to drink, have immediately expelled the spreading poison and assuaged the swelling." Imagine, gentlemen, your felicity.

If a single book, even a watered one, saves a man from the demon of a serpent, how many devils will you be able to drive out with your 15,000?

Infectious diseases were always considered the result of poisons—poisons and demons being often identified with one another. Apollo's poisoned arrows killed the Achaei, the Peloponnesians were charged with poisoning the wells and causing the pest of Athens, the Jews and the leprous that of Europe. The remedies were incantations, fumigations, lotions, ointments, embalming, burning of wood, drying out of swamps—by which Empedocles relieved the endemic of the city of Selinus—isolation of the sick, good drinking water and food, and means to prevent putrefaction.

Hippocrates had no better fumigation than with sulphur, which you also remember from your Homer. In the 20th book of the Odyssey, the hero, after killing hundreds of matrimonial candidates, preaches the following funeral oration to the old nurse: "Bring me good things, mother, and curse relieving sulphur for me to smoke out the hall."

The discovery of the specific action of mercury against syphilis, which was more murderous centuries ago than it is now, justified Paracelsus in his demands for a specific therapy. It was the time in which infectious diseases were more than ever attributed to some sort of a poison—no longer, however, sent by gods or demons—which must be fought. The chemiatic school of the seventeenth century looked for it in a prevalence in the blood of the patient of either acids or alkalies, and treated maladies accordingly. A vast number of physicians, however, believed in the presence of small animal beings, minute worms, "vermiculi," which had to be expelled. Thus it happened that for centuries worm medicines, anthelmintics, were in so common use as to become permanent popular medicines. I well remember that my mother had to call in every spring a number of muscular peasants to help her in administering the annual nasty dose.

Nor was this belief new, for Varro (*de re rustica* 1.1) and Columella (1.5) attributed their Roman malaria—without being able to prove their opinion—to animated beings, 1500 years before the period of which we speak. Two hundred years ago the Jesuit Anasthasius Kircher believed in the same, although he knew of nothing better to ward off the plague than an amulet, while Anthony Loewenhoek, the—for that time—greatest microscopist of two centuries ago, doubted the vermiculi theory. Per-

haps, however, the then recent knowledge concerning the itch had much to do with its corroboration. The insect acarus causing it was described about that time by Ettmüller, Buonomo and Cestoni; still, though it was observed in two different countries, it was forgotten until it was rediscovered by Oscar Simon, of Heidelberg, only 60 years ago. The fate of this small, but after all self-asserting, insect may contain a warning to my friends. The acarus was known to the Arab Abenzoar, who died 1162, also to the men whom I have just mentioned, also to Hauptmann of Dresden, who did not appreciate its importance, in the eighteenth century, and to Wichmann a century after him. If they had known the history of their science they would have been spared the disappointment of ignorance. Something similar happened to Biett, the great Paris dermatologist, nearly a century ago. In his clinic he was told by a Corsican student that the old women of his island scraped small animals out of the skin. Biett did not mind the tale, and proves to all of us how easily our—I mean (yours and mine)—ignorance or inadvertance may deprive us of literary and humanitarian immortality. *Sapienti sat.*

My rapid review must not omit the name of Christian Johann Lange (1653-1701) who laid a foundation for internal antisepsis by using balsamics for the purpose of destroying “animated corruption”; and that of another Leipzig professor, August Quirinus Rivinus (1652-1723), who favored the use of calomel. About that time cinchona entered upon its triumphant march as an anti-febrile and antiseptic; it was so powerful as to convert even Sydenham, the great Hippokrates of modern times, from his Hippocratic principles of elimination and patience, to a demand for specific therapy. He had many followers.

Bohn and Boerhaave, also Theophilus Lobb, recommended a mixture of mercury and antimony for variola; and Marc Anton Plenciz, of Vienna, the most radical adherent of animated pathology, prescribed cinchona and vermifuges in all forms of infectious diseases.

It is interesting to quote a few additional extracts from our Anglo-Saxon literature. In his “*Sylva Sylvarum* or a Natural History” Cent. IV., Francis Bacon prophesies as follows: “It is an inquiry of excellent use, to inquire of the means of preventing or staying putrefaction; for therein consisteth the means of conservation of bodies; for bodies have two kinds of dissolution; the one by consumption and desiccation; the other by putrefaction. But as for the putrefactions of the bodies of men and living



creatures—as in agues, worms, consumption of the lungs, impostumes and ulcers, both inwards and outwards—they are a great part of physic and surgery.”

Richard Morton (Amstelodam, 1696, II. cap. 7) took cinchona to be simply an antidote for the “fermentum febrile” which underlay all infectious maladies. That impression was lost sight of until in this century my old friend Binz in Bonn restored it to its position in fevers and also in whooping cough. John Pringle (1750) asserted its antiseptic power, and added myrrh, camphor, serpentaria, valerian, and chamomile—not our Roman, but vulgaris—also alum, mineral acids, and resins; William Alexander used cinchona, willow, and chestnut; Berkeley, tar-water.

A very modern idea, reminding one of Pasteur’s treatment of hydrophobia, occurred to Stephen Wespremi, a Hungarian, who published at London, 1755, his “tentamen de inoculanda peste.” He was followed by a Russian, Samoilowitz, 1771. Both used the pus of plague externally, after scraping the skin—with the belief that the poison “*half destroyed and almost degenerated*” would still immunize the human body. In a similar way Francis Howe recommended the inoculation of measles (Med. Facts and Experiments, 1758), which method was approved by Alexander Monro. By all of them, and by others, the number of active or indifferent remedies was increased, so that about 1800 besides those I have mentioned, and many I omitted—the applications and fumigations of vinegar, chlorine, sulphuric, nitric, and sulphurous and nitrous acids; also alum, ammonii carbonate, and camphor—the latter too much neglected amongst us Americans, in spite of its marked internal stimulating powers—were in common or frequent use.

In addition to Gottlieb Henle, Professor in Heidelberg and in Göttingen, who in 1841 in the preface to his general anatomy expressed his firm belief in the organic animated origin of infectious diseases, I should mention a very few names. Gottfried Eisenmann wrote in 1835 a book on “the vegetable diseases and the poison-destroying curative methods” (Entgiftende Heilmethoden). Without at that time being able to prove his position, he attributed infectious maladies to proto-organisms—so-called monads—and recommended disinfectant remedies. He used calomel, creosote, and acids. He advised the selection of “remedies not dangerous to the organism but deleterious to the morbid virus,” and prophetically stated what is so beautifully demonstrated by

our modern serotherapy, that *not every remedy will be adapted to every disease*. There were two great reasons why Eisenmann was prevented from exerting all the influence his great gifts were destined for. One was the predominance of pathological anatomy and of the therapeutic Nihilism of the Vienna School some 50 or 60 years ago, according to which the sick, as I have shown elsewhere, were told to be satisfied with being diagnosticated and autopsied. The other was his long imprisonment of a dozen years. The best minds and the warmest hearts of the European nations were always with the people against the absolute brutality of their rules. Thus it was that Silvio Pellico, and Maroncelli, and Eisenmann suffered in black dungeons; thus it was that Germany deprived itself of its prominent geniuses; thus it happened as, a fortunate offset, however, that the West of this Union was made accessible to civilization by that immigration of suppressed and impoverished millions, and that our country was blessed with the presence and the labors of Follenius, Francis Lieber, and the greatest and noblest of them all—Carl Schurz.

In order to be just, and it is easy to be just, I shall close my remarks on this historical introduction to our modern bacteriological knowledge and serotherapy with a few names that some of you may not expect here. I allude to homœopathy. Hahnemann was a learned man and knew history. So he took bodily and boldly his potential doses from Arnold of Villanova (1400) and his *similia similibus* from Paracelsus, and there was nobody, it appears, to tell on him. Under the influence of the growing spirit of science, he believed in specifics, but as he was jealous and querulous, they must not act on morbid processes but on symptoms. Fortunately, the homœopathy of the present day approximates Hahnemann less and medicine more.

One of his most intimate followers, for a few years, at least, was a veterinary surgeon named Johannes Joseph Wilhelm Lux. He wrote a book with the title "The Isopathy of Contagions; or All the Contagious Diseases Carry the Means of their Recovery in Their very Own Infecting Matter," Leipzig, 1833. When I was a clinical student, Germany had forgotten him almost altogether. Even today it takes historians like Max Neuburger, to whose book on "The History Preceding Antitoxic Therapy" (Stuttgart, 1901) I owe many of the facts I displayed before you,—to know and appreciate him. Some remembered him as a perfectly ridiculous, or laughable, or despicable person who could grow nowhere but on the soil of a sectarian medical faith. But if anybody has ever

come near the idea underlying the serotherapy of modern art, it is Lux, the despised homœopath. "Fides communis, altare commune,"—A single faith, a single altar. Nothing proves that more than the revelation coming to us through the cloud-piercing intellect of the forgotten village veterinarian.

In my remarks I have not meant to be an historian only. I have myself been a practitioner for more than half a century, and I cannot miss an opportunity to be practical and, if possible, useful to a few of my colleagues still younger than I.

While history teaches many pleasant lessons, some have a bitter after-taste. The study of the history of medicine would save a great deal of labor and disappointment to the individual practitioner, and much suffering to mankind. Even the great men in the profession commit sins that should never be washed off the memorial tablets of our science and art. Of the dereliction in that respect committed by one of the great names in medical lore, J. K. Proksch, the learned syphilographer of Vienna, gives a terrible example, viz.: Ricord, the great Frenchman whose name is forever illustrious in the literature of his specialty, proclaimed in 1838 the innocuous character of the secretion of secondary syphilis when transferred to a healthy person. That oracular assertion tempted nineteen medical men in all countries to infect and ruin for life seventy-seven persons on whom they made experiments. Before that very year, 1838, fifty monographs had been written on the same subject—all of them positive in their proof of the dangerous nature of secondary syphilis. As early as 1496 a heavy fine was laid in Switzerland on those who used a second time a tool or knife employed on a syphilitic patient. Epidemics of syphilis transferred by cupping instruments were observed in Brünn in 1577, and afterwards in many other places. Rust, in 1805, described the prevalence of infant syphilis in Cracow contracted through the manipulations on Jewish babies by the circumcisor. Extragenital infection has been treated in all text-books for hundreds of years, and in more than one thousand monographs. And still these facts were not known to Ricord, and are not known to some of *us*; else a single occasional occurrence would not be considered worthy of being given a place in a medical publication. A student who before graduation had been told the truth about these things would never spend his time in displaying his ignorance before his peers. But history is almost never taught in American schools; our books on the history of medicine are very few. The centennial history of



American Medicine, written in 1876, and the books of Gross, Packard, and Mumford are not on as many shelves as they ought to be—or are shelved too soon. Even in Europe this important branch of our knowledge is rarely represented in special professorial chairs. The same writer, Proksch, gives us one hundred references of syphilis of the veins, others of syphilis of the bladder, of the ureter, of syphilitic fever—cases which are still described as exceptional, though the latter was reported by De Vigo and others four hundred years ago.

How much may be sinned through ignorance of what has preceded is shown by the example of John Hunter, who denied the occurrence of visceral syphilis, though it had been described by those gigantic landmarks, Paracelsus and Morgagni.

It must be admitted that the neglect of history and the disrespect of knowledge antedating our time, and the attempt to rediscover and rehash old and sometimes trite things, appears to us, the average men, as justified or at least explained by the neglect of history shown by our betters. As long as our universities do not teach it, the pupils feel encouraged to neglect it.

That is why good and conscientious articles on medical lore are comparatively rare with us. On this side of the Atlantic we have no historical journal except that published in Brooklyn by the Secretary of the Association of Medical Librarians, and very few historical societies except those connected with Johns Hopkins, with the College of Physicians of Philadelphia, the Charaqua Club of New York, and a few others. Even European literature shows the symptoms of decay. I know, for instance, of no poorer compilation than the second half of the third volume just finished of the voluminous history of medicine by Pagel and Newburger, which was planned by that honest and immortal man, the late Professor Puschmann of Vienna. The enthusiasm and profound knowledge of this great searcher and of the editors seems to have been succeeded by the meretricious haste of a publishing tradesman.

Just let me give you a few instances of the disregard of discoveries or observations that were made during my own lifetime. In 1830, Eisenmann, at that time already quite an authority, recommended diluted chlorine water as a preventive and curative remedy in gonorrheal ophthalmia of the newly-born. The advice was not heeded and nothing came of it except more blindness for thousands of babies. We waited until 1881 for Credé's recommendations of a two or one percent solution of

silver nitrate. The poisonous effect of big doses of potassic chlorate was known; first in American journals, teaching, and books, since 1860, 1876, 1879, 1880; hundreds of poisoning cases were then and afterwards known and published both here and in Europe, and there is quite a literature on that important subject; still an occasional case is again and again published by men who think they have found something new. Clinical experience had shown the digestibility by the newly-born of dilute decoctions of cereals as an admixture of cow's milk; moreover, in 1870 and afterwards, physiological experiments proving the same things were published by Schiffer, Zweifel, Korowin, and others. Both clinically and experimentally the difference between the casein and fat of different milks was proved. All to no purpose. Hundreds of papers and books would fight or disregard for decades these simple truths, and gradually, only at present, hundreds of papers and books tumble over one another to prove by the rediscoveries made by professors and instructors, and infant home doctors, and chemists, and sanitarians generally, that both in disease and in health flours may be indicated, or are indicated. There are even those who at last have the courage to admit that nature herself knows something, and that not every baby dies that is not manipulated by mathematics and engraved bottles.

American literature, quite accessible, has proved that pyelitis in children is not at all an infrequent disease; for stone and tuberculosis of the kidney is frequent, and gonorrhea not rare. In spite of that an American physician practicing in a large city has within two years published in a German magazine a single case of this, to him, not to others, rare and unheard-of disease.

The same should be said of nephritis in the newly-born. It is very frequent and dangerous. American literature, quite accessible, proved it at least these ten years. Single cases of this alleged rare disease encumber our magazines, and their reprints our waste paper baskets.

Home, the Englishman, and Bard, the American, proved the identity of pseudomembranous croup with what later was called diphtheria nearly 150 years ago; again another American demonstrated the same fact 40 or more years ago. It has taken many new discoveries of the old truth before it became palatable.

And so on, ad infinitum; but I must after all not forget our immortal Joseph O'Dwyer. This conscientious and modest man worked over his plans to intubate the croup-infected larynx for years, unaided, doubting, and hoping. Then he was shown in

American and European books that Bouchut came near perfecting the same plan three decades before and was thwarted and discouraged only by the narrow-mindedness and jealousy of the French Academy of Medicine. O'Dwyer's lot was cast in different times and amongst more open-minded and ethical colleagues. The American profession hailed the new discovery with enthusiasm, and could only deplore with O'Dwyer their and his ignorance of previous achievements obtained in another country.

What is it that all these mistakes should teach us, both the old and the young? First to learn from one another; that is what we accomplish in not living the lives of hermits, but in society. I never was in a meeting that did not teach me something. I always knew I could learn from the young, for it is the young men, who, through their industry and the teaching they enjoy of all that is modern, and the recent laboratory methods, are enabled to pay to us and to mankind the debts we left unpaid. When people point to an old man who kept abreast with the advancing time, be sure that he is one of those who never lost their contact with the hard working and unpretending modest young. On the other hand, the young will soon learn that their inexperience, their inability to cope with all the special efforts which make the perfect doctor, will inspire them with the respect due to advancing years, when applied to the absorption of scientific facts and the service of suffering mankind. Indeed do not forget my young friends that all your special laboratory work must be applicable to a therapy, that means the prevention and cure of disease, and becomes sacred only through such application. Old Cicero told you two thousand years ago that there is no glory in anything that proves useless to mankind. There is another thing which should not be overlooked. Compared with the long history of mankind, of intellectual efforts, of slowly evolving science and art, we are all young. What neither you can teach us, nor we can transmit to you, our cooperators of today, of the last century, of all centuries, may teach you and us. Therein lies the blessing of a competent library such as you possess and will be able to enlarge through your own efforts and the generosity of a cultured public.



## Some Typhoid Fever Statistics

By W. C. ABBOTT, M. D., Chicago, Ill.

In *Northwest Medicine* for September, E. M. Rininger gives details of 177 cases of typhoid fever treated by him in Alaska. The sanitary conditions were those of mining camps, the diet was "condensed milk or nothing," with gruels during convalescence. Dr Rininger's theory of the malady is thus expressed:

"As typhoid infection means a general toxemia, invading all tissues and all organs, and as there is at present no specific antidote, the most rational procedure is to perfect your elimination through as many channels as possible. This I attempted to do through the natural eliminative channels, the liver, the bowel, the kidney and the skin. The portal of entrance of the typhoid bacillus is the alimentary canal. This canal also acts as a culture tube for various micro-organisms and is the seat of fermentation and putrefaction of food products. We do not know whether antiseptics have any particular effect on the typhoid bacillus in situ. Bacteriologists state that they positively destroy many specific organisms that are found in the intestinal canal and I know that they combat fermentation, eliminate the foul odors from the intestinal discharge and also decrease diarrhea and tympanites.

"Medication is thus employed chiefly with the idea of elimination, supplemented by the use of intestinal antiseptics and every other measure that tends to lessen toxemia and exhaustion."

The therapy comprised calomel and castor oil, continued and repeated until the sewers were thoroughly flushed, with zinc sulphocarbolate. Saline flushes, ice to the head and baths when the fever rose above 102.5, were employed.

### RESULTS:

Seven deaths, or.....3.95%

Of which two were caused by intestinal hemorrhage,  
two by perforation, two by toxemia and one by acute  
nephritis.

Intestinal hemorrhage in ten cases, or.....5.65%

Intestinal perforation in three, or.....1.68%

Venous thrombosis in fifteen, or.....8.47%

Osteomyelitis in three, or.....1.68%

Orchitis with epididymitis in one, or......56%

Arterial thrombosis in one, or......56%

Neuritis in one, or......56%

Relapse, four, or.....2.26%

The first death was of a man sick two weeks before calling a physician, who died of perforation following a meal of pork and beans. The second died of toxemia, the third and fourth of hemorrhage (ill ten days before treatment began), the fifth of intercurrent acute nephritis, the sixth seen after twelve days' illness died of coma, probably nephritic, and the seventh from perforation after being brought overland 120 miles for treatment. One other case of perforation recovered without operation. Considering the conditions this is certainly a remarkable record.

In the CLEVELAND MEDICAL JOURNAL, Dr John Phillips records 1070 cases of typhoid fever treated at the Lakeside Hospital. The form seems to have been mild since only about 10% had diarrhea. Baths were used when the fever exceeded 102.5. The drug treatment was symptomatic, headache met by ipecac and opium, vomiting by tiny doses of creosote, abdominal distention by turpentine to the skin and internally, or touching the surface with the Paquelin cautery. "Constipation is the most common cause of rise of temperature during convalescence."

RESULTS: Mortality, 7.9%

Cholecystitis, 12 cases.

Intestinal hemorrhage, 63 cases, 5.88%

Perforation, 29 " 2.7 %

Phlebitis, 42 " 3.9 %

Otitis media, 31 " 2.89%

Bronchitis frequent.

Pneumonia occasionally.

Cystitis, 9 cases.

Pyelitis, 2 cases.

It will be seen that with all the advantages of a thoroughly equipped modern hospital and the supplies to be secured in a great city the results were much worse than in the squalid tents and hovels of Alaskan camps, the mortality being almost double. The difference may be fairly credited to the better treatment of the Alaskan physician, who gives valid reasons for his practice of intestinal antisepsis and demonstrates its correctness by his results.

Lest it may be claimed that there is credit to be given the northern climate and conditions we add some data from a report made by Dr J. M. Heyde, of Walnut Creek, Ohio, in the *American Journal of Clinical Medicine* for October. Dr Heyde and Dr J. G. Stucky treated 26 cases of typhoid fever expectantly, with four deaths, or 15.4%. Fifty-four cases were treated with

sulphocarbolates, with one death, or 1.8%. The patient who died (of cortical cerebral venous thrombosis) could hardly be debited against the treatment as she was transferred to another physician ten days before death, who did not continue the sulphocarbolates. Of the cases treated by Dr Heyde 12 treated without sulphocarbolates averaged 29 days' duration, while 12 treated with sulphocarbolates averaged 17 days. Of the former, seven cases had complications, four of them hemorrhages; of those treated by sulphocarbolates all were uncomplicated.

He who runs may read.

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## Correspondence

To the Editor:—

Your editorial entitled "Anti-Vaccination Again" does not bring out the facts in as strong relief as the published reports of the City Health Department warrant. The statistics serve not only to undo the mischief done by Dr Friedrich's paper of 1902, but also to clinch beyond possible dispute the efficacy of vaccination as the sanitary prevention of small-pox.

### SMALL-POX IN CLEVELAND FROM 1898 TO 1906

Year.	No.	Deaths.
1898	48	0
1899	475	3
1900	993	16
1901	1230	20
1902	1298	224
1903	106	22
1904	42	0
1905	0	0

The epidemic of 1901 was "a mild, slightly contagious disease, which left no marks and seldom proved fatal." The Health Officer took charge at the tail end of this epidemic and complacently published the proclamation, "the death blow to this epidemic was dealt by formaldehyde!"

Following this supposed new discovery came the virulent epidemic of 1902 with its appalling fatality. Through "the prompt and vigorous initiative of the physicians and the intelligent energy of their lay coadjutors," 195,000 individuals were vaccinated during that year. The epidemic, which had been recurring since 1898 and reached its climax after and despite the campaign of disinfection in 1901, was brought to a halt so suddenly after the wholesale vaccination in 1902, that for the past two years it has become extinct.

M. ROSENWASSER.



# The Cleveland Medical Journal

CONTINUING { THE CLEVELAND MEDICAL GAZETTE and  
THE CLEVELAND JOURNAL OF MEDICINE

MONTHLY

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## EDITORIAL

### Cleveland Medical Library Association

The Cleveland Medical Library Association formally opened its new building on Wednesday, October 17. In the afternoon a public reception was held from three to five, at which the refurnished rooms in the old quarters of the library, and the new building were opened for inspection.

The formal exercises were held in the evening in the new auditorium before a large audience of the Cleveland medical profession.

Dr Hiram C. Haydn offered an opening prayer, and was followed by Dr Beckwith, the Vice-President of the Association, who introduced Dr Dudley P. Allen, the President. Dr Allen gave a brief historical sketch of the growth of the Library from its foundation, and announced that owing to subscriptions from the profession and its friends, the Association would be able to start the year 1907 free from debt, with a property and endowment valuation of about \$70,000, and a library of nearly 15,000 volumes.

President Thwing, of Western Reserve University, spoke briefly and after the ceremony of receiving from Dr Sherman,

of the Building Committee, the key to the new building, Dr Allen introduced Dr Abraham Jacobi, of New York, who gave the address of the evening, which will be found elsewhere in this number.

The audience at the close of the exercises was given an opportunity to visit the stack-room and the new club-rooms.

The members of the Building Committee, which had charge of the erection of the new building and the renovating of the old quarters, were Dr H. G. Sherman, Dr Dudley P. Allen, Dr H. E. Handerson and Dr Wm. Lincoln. To them is due the greatest credit for the most successful carrying out of the plans for the enlargement of the Association's plant.

The new building is of brick, two stories in height, directly adjoining the original building. Its first or basement floor contains the stack-room, which is built according to the latest ideas in stack-room construction, and with special features for keeping dampness from the books and for fire protection. The upper story is taken up by a very well arranged auditorium, seating three hundred, with most excellent acoustic properties, and efficient lighting and ventilation. It will provide a most ample and suitable meeting place for the Academy of Medicine. The rooms on the first floor of the old building have been completely transformed by redecoration and refurnishing into very comfortable club-room quarters for Library members. The second floor will furnish rooms for Council meetings and for a medical museum.

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### Medical Inspection of Schools in Philadelphia

The writer has recently received the annual report of the Public Education Association of Philadelphia. This organization of over 800 members is one of the 150 independent organizations in this country which devotes its energies, directly and indirectly, to work for public schools.

When the fad for medical inspection of schools was appealing to public spirited citizens several years ago this association enthusiastically advocated the innovation, and through its efforts several dozen physicians voluntarily inspected several schools, each, and some good resulted, but soon the doctors got tired of giving away their services and the scheme collapsed. Then the Public Education Association agitated for a fund to pay medical inspectors—and in time got it.

Six or seven pages of the current annual report is devoted to the medical inspection and a plea for trained nurses to follow up the recommendations of the inspectors and induce the parents to get treatment for defectives. Evidently they have found in Philadelphia, what they should have known in advance through the experience of many European and American cities, that medical *inspection* is largely futile. It would have saved time and patience if they had followed directly the example set by the cities of the older countries and at once instituted *medical supervision* of schools.

It is doubtful if the use of any number of nurses in this connection will remedy the matter. The state, through its appointed health authorities, must meet the issue and institute thorough medical supervision by competent medical experts, before the health of city school children will receive any real safeguarding or the physical defects of the masses of the children will be detected and remedied insofar as medical science can do this.

The report states that 133,021 children, reported by teachers, were examined. Of these treatment was recommended for 33,283. 12,741 of these were reported as having defective vision. 532 had adenoids. 3,405 were lousey. It has been evident for some time that the Quakers have been scratching their heads—politically—but the report does not attempt to explain the connection, except to say that 1,695 pupils were excluded on account of head lice. It was often found that parents would not remedy matters when their children were excluded and would make no effort to reinstate them in school. In May one principal reported 55 exclusions which he claimed could have been avoided had there been adequate authorities to follow up these cases and insist on treatment, and immediate return to school.

The report is illuminating and should be of interest to those interested in public sanitation. Miss Dora Keen is the secretary of the association.

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### Small-pox and Vaccination in Cleveland

We publish elsewhere, page 408, a letter from Dr Rosenwasser, President of the Cleveland Board of Health, which calls attention to the fact that our editorial entitled "Anti-Vaccination Again" (see October JOURNAL) does not bring out the true situation in as strong relief as the published report of the City



Health Department warrants. Among all the statistics of small-pox in its relationship to vaccination, that we know of, none demonstrates more clearly the true efficacy of Jenner's discovery, than do the figures for Cleveland.

In view of this fact, and further in view of the discussion which we have been drawn into by the publication of the brochure referred to in our editorial of last month, we publish in this place these figures even at the risk of being accused of repetition. They need no comment.

Year	Number of Cases	Deaths
1898	48	0
1899	475	3
1900	993	16
1901	1230	20
1902	1298	224
(General vaccination introduced in September, 1902)		
1903	106	22
1904	42	0
1905	0	0

The *London Lancet* and *The British Medical Journal* have been good enough to publish our letter anent this question, referred to in the October number of the JOURNAL. In order that we might emphasize the true facts and as an antidote to the ridiculous fallacy of formaldehyde disinfection as a prevention of small-pox we have again written to the English journals embodying our statistics in these letters.

### The Quack Doctor and the Cleveland News

No citizen of Cleveland can have failed during the past month to note the campaign so actively carried on against the charlatans and advertising specialists of the city, by the *Cleveland News*. Not only should our appreciative thanks be given to the manager of the *News* for its fearless campaign against the abominable evils incident to the advertising specialist, but in our judgment we should do more and lend, as an organized body, active cooperation in this campaign. What is possible in other cities is surely possible in Cleveland, and though we appreciate the expense involved in the securing of legal services and the necessary costs incident to the prosecution of any such campaign, we cannot help feeling that the practicing physicians in Cleveland and the members of the Academy of Medicine would respond cheerfully to a small tax for the purpose of ridding ourselves of these nauseating so-called doctors.

In a number of cities an organized body of the profession has been able to employ a prosecuting attorney, and by means of a campaign, similar in many ways to that carried on by Mr. Stuart of the *News*, has secured evidence and has been successful in driving a no inconsiderable number of these individuals from the city. Why should not the Cleveland Academy of Medicine, through its legislative committee, carry on a perpetual unflagging warfare against just such abuses.

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## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

**The Suprarenals :** In the *Journal A. M. A.*, for September 8th, Torald Sollman and Edgar D. Brown report a decided lack of uniformity in the strength of the active principles contained in the suprarenal solutions upon the market. They assert that in view of the variability in the commercial samples, definite conclusions concerning the comparative activity of the different makes of suprarenal solutions are not warranted. Theoretically, all samples of "one to 1000 solution of suprarenal alkaloid" should be of identical strength, just as are all one to 1000 solutions of strychnin. It is evident that this is not the case in practice, and that the physician in injecting this powerful substance is at present unable to use a perfectly exact dosage; certain samples examined showed less variation than others, but they are not certain that a larger series of samples might not have shifted the relative position. This is also true of the average efficiency and they would not lay any emphasis on the comparative efficiency of the different makes on account of the variability. The results as to the stability of the solutions were more constant, but they believe that the question of stability is probably of little practical importance since the dilutions of all the samples were practically worthless after 24 hours. They are unable to state whether the samples vary in strength when they leave the maker's hands, or whether the differences are due to subsequent deterioration. The former would be quite inexcusable, while the latter would seem to demand a dating and returning system similar to that in vogue for antitoxic sera.

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**Pulmonary Edema:** The *Therapeutic Gazette*, for September, states that the fact that pulmonary edema is a symptom rather than a disease, and that its causes may be so very varied is doubtless an explanation for the varying degree of success, which have followed the employment of different drugs. It also explains why some cases are hopeless from the start, and others respond fairly rapidly to active treatment. Again we must bear in mind that pulmonary edema may be a slowly oncoming condition or, on the other hand, may develop with remarkable rapidity, so that in the space of five or 10 minutes a person, whose respiratory organs are apparently in perfect health, may become almost suffocated and a free flow of bloody serum may take place from the mouth and nose. That the cases in some instances are neurotic in origin,

or at least depend upon toxic substances which influence the blood-supply of the lungs, would seem to be indicated by the experience of investigators and clinicians. Thus no less eminent a practitioner than Dr Janeway of New York, in describing cases of this character, which had been under his care, stated that he has seen pulmonary edema not infrequently associated or followed by profuse sweating and purging and excessive diuresis. In urgent cases of pulmonary edema, in which the physician may be called upon to exercise his greatest skill at a moment's notice, it seems to be the consensus of opinion that morphin and nitroglycerin should be freely given. The writer insists on the fact that the treatment of pulmonary edema must depend upon a careful study of the patient's general condition. In those cases, in which arterial spasm is present, nitroglycerin is probably invaluable; whereas in those instances, in which the arterial tension is abnormally low, nitroglycerin would seem to be contraindicated and atropin and strychnin would appear to be the remedies of choice.

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### Simple Elixir :

E. E. Heffner, in the *Druggist's Circular*, calls attention to the fact that he occasionally finds physicians who believe that simple elixir, the aromatic elixir of the Pharmacopœia contains, no alcohol or at least in slight amount. When prescribed with the bromids for children, the alcoholic strength of the prescribed dose may be enough to counteract the sedative effect of the bromid. He also mentions a common prescription in which a bromid and chloral hydrate are prescribed together in simple elixir. This at first makes a clear solution, but on standing, the incompatibility results in the formation of chloral alcoholate, which after a half hour comes to the top in a clear layer about one-fourth of an inch thick and closely resembling in color the rest of the prescription. In one case, the mixture was dispensed without a "shake" label, and the patient got nearly all the chloral as alcoholate at the second dose. The use of an aromatic water and simple syrup in these prescriptions would obviate the danger.

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### The Salicylates :

In the September number of the *American Journal of Medical Sciences*, Thomas Wood Clarke reports concerning the value of massive doses of the salicylates, in the diagnosis and treatment of acute articular rheumatism in 74 cases of adults treated in Lakeside Hospital. The routine treatment consisted in giving the sodium salicylate every hour if the patient was awake, in doses varying from 10 to 20 grains, until the toxic symptoms appeared, the attendants being alert to recognize the appearance of deafness and tinnitus as an index of full drug effect; the salicylate was then stopped, to be resumed when the symptoms disappeared and then given in doses of 10 to 20 grains every two to four hours, stopping again with each recurrence of toxic symptoms. The amount of salicylate required to produce symptoms of its full effect has varied from 75 to 360 grains, the average in the entire series being 200 grains. These massive doses are borne well, as a rule without nausea, vomiting, or depression, and the coincident relief of pain makes what discomforts there are seem trivial. The main objection to the use of the massive doses is the difficulty in keeping the patients at rest after the first three days. Feeling comfortable,



and as they express it, cured, most of the unintelligent public ward patients can see no reason for remaining in bed, and clamor to go to their homes to work, and it is often hard or impossible to keep them on their backs for the three weeks after the last symptoms have disappeared, a procedure which has seemed advisable. He concludes that (1) Sodium salicylate can and should be given in much larger doses than are generally used; (2) Given in massive doses it reduces the fever, relieves the pain and swelling and shortens the course of the disease; (3) It is not injurious to the heart, and appears by quickly cutting off the disease to offer some protection to that organ; (4) The patient's tolerance to the drug and the rapid cessation of symptoms form valuable therapeutic tests for the diagnosis of acute articular rheumatism.

### Sal-ethyl:

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L. W. Bremerman, in *Medicine* for September, calls attention to the use of sal-ethyl in rheumatic cases. He has used the remedy for two years, with excellent results. Ethyl-salicylate is a transparent, colorless, volatile, slightly soluble, oily fluid. It has a pleasant characteristic odor and taste, somewhat similar to, but less pronounced than, the methyl compound. It is not absorbed from the respiratory tract, or skin, but is quickly absorbed from the stomach, or when given subcutaneously, and is very rapidly secreted through the kidneys. There is a gradual rise in temperature (afterward falling to normal) the first hour or so after the administration of a single dose. The pulse rate is slowed at first, probably from vagus stimulation. He generally gives five minim globules of sal-ethyl every hour the first day, and every two hours the second day. He believes that this preparation may be given almost fearlessly, in large doses, frequently repeated, without danger of heart complications or causing untoward gastric conditions. With the use of the drug, he carries out, as far as possible, the ordinary dietary for this class of cases, combined with an increased water-drinking of about 10 glasses during the day. He looks upon sal-ethyl as almost a specific, uses it in all cases, and has given up the use of coal-tar products entirely. He believes it not only relieves the pain and shortens the duration of the attack, but diminishes sequela and complications.

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**Basedow's Disease:** In *American Medicine* for August, Hubert Richardson states that the serum of thyroidectomized dogs, sheep and of subjects of myxedema, the milk of thyroidectomized goats, the powdered flesh of thyroidectomized sheep and the powder of cretinic goiter have all been used in the treatment of Basedow's disease, producing improvement in some cases, but no cures. Recently thyrodoctin, the dried serum of thyroidectomized animals, has been placed upon the market. In two cases, in which he tried it, the results were not encouraging, although others have been more successful, so far the serum and milk treatment of Basedow's disease cannot be recommended for the results obtained. His experience has shown that strophanthus and digitalis in reasonable doses will control the cardiac symptoms, while suprarenal gland, blue mass, aristol or lugol solution have a marked effect on the general condition. No treatment as yet known, however, is entirely satisfactory.

**Uremia :**

The *American Journal of Clinical Medicine* for July advises in the treatment of uremia (1) A milk diet in every case of uremia or threatened uremia, absolutely restricted at first but gradually enlarged to include cereals, egg albumin, etc., but forbidding tea, coffee, all alcoholic stimulants, soups, bouillon, lean meats, and anything else likely to undergo putrefaction; in very severe cases starvation for 24 hours; (2) If vascular tension is low or urinary excretion small, increase the amount of fluid, water may supplement milk; (3) In general avoid all depressing measures, as severe purging, vomiting or diaphoresia; in cases of dropsy, however, the depletion may be indicated; (4) Clean out the bowels with small doses of calomel, supplemented by saline cathartics; make good any loss of liquid by giving more bland fluids to drink; ice water enemas will not only assist in emptying the bowel, but stimulate the portal system; (5) Keep the bowel sterile with the sulphocarbolates, given until the stools become odorless; (6) After a period of hepatic rest, give small doses of the bile acids for gentle stimulation.

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**Carbolic Acid :**

Leo. B. Meyer, in the *New York Medical Journal*, calls attention to the danger of weak solutions of carbolic acid when used as surgical dressings. Even very weak solutions and ointments, when applied to terminal parts, such as fingers, toes and ears, may and often do cause death of tissue, and more rarely constitutional symptoms. The fact that such weak solutions are anesthetic renders them the more dangerous, as the effect is painlessly produced. Harrington has collected reports of 132 cases of gangrene following the application of carbolic acid solution (one to three percent), 14% of the cases requiring amputation. Usually very weak solutions (less than one-half percent) may be used without fear, but where solutions stronger than one-half percent are employed, trouble may ensue if idiosyncrasy is present. The field of phenol in surgery is very limited, and most decidedly can not be used as a lotion in which continuous action is required, except in rare cases. It may be used and is often recommended as a topical application in carbuncles, erysipelas, etc., but when so used should never be applied to terminal parts, such as fingers and toes. There is nothing new in this, at any rate to most physicians, and it is about time for those who know and realize the danger of this sovereign remedy to do something toward enlightening those who do not. When physicians and druggists know and do their duty in the matter the public will soon learn to embrace some other and less dangerous antiseptic for every-day use.

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**Lupulin :**

In the *Medical Record* for September 22, Heinrich Stern summarizes the uses of lupulin. This drug although official is not at present very extensively employed. It does not exhibit a definite composition, its various constituents differing in different specimens. Thus it is the quality, and not the quantity, *per se*, on which depends the value, and particularly the therapeutic import of lupulin. The lupulin which he has found the most active and trustworthy is that from Saag hops, Saag being a little town in the Bohemian hop-belt. He has used this for several years, and considers it superior

to the lupulin derived from American hops. Lupulin finds a special indication in the functional disturbances of the stomach, in sensory as well as motor and secretory neuroses and in neurasthemia gastrica. It is in part a symptomatic, in part a casual remedy. It is especially valuable in the treatment of nervous anorexia. In the most painful of all gastric neuroses, cardialgia (gastralgia, gastric spasms, gastrodynia), lupulin is a valuable remedy provided no organic disease is present. In the less severe forms of cardialgia, lupulin in gram doses (in wafers or divided in capsules) repeated if necessary every hour will be found of service. The addition of small doses of codein will often, though not always, enhance the efficacy of the drug. For immediate effects, spirits of chloroform or compound spirits of ether may be used, and for longer lasting effects, lupulin. Gastric secretory neuroses of all forms and degrees are usually greatly benefited by lupulin and he finds that lupulin alone, if given in sufficient doses, will ameliorate, in most cases, these conditions. Its employment, even for protracted periods, is never followed by undesired after effects.

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### Scars :

John T. Rankin, in the *Archives of Physiological Therapy* for September, states that it is possible that the high frequency current will prove useful in the treatment of small scars. Its action here was noted while treating a port-wine mark involving the forehead and temple. A physician had previously attempted to remove the nevus by the use of an acid, a small amount of the acid being applied along one edge of the nevus as a test. An objectional scar resulted and the use of the acid was abandoned. While treating the nevus, the spark was applied to the scar with the same intensity as that used over the nevus, and when the resultant scab came off the scar showed a lessening of its former glistening white appearance. A second application was made and after this, when healing was completed, the white scar was completely obliterated. The least pressure over the area would drive the blood out and for a moment the glistening white appearance would prevail, showing that there had been but little destruction of the scar tissue but rather an extension of capillaries through or over the scar. In a person of a ruddy complexion, it would seem preferable to substitute such a light pinkish blemish for one that was glistening white. Care should be taken not to use too heavy a spark around the eyelids or over large superficial veins, as this may cause considerable swelling of the tissues.

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### German Medical Society

The 137th regular meeting of this society was held at 8.30 p. m. at 1006 Rose Building, on Tuesday, October 2. Program: "Pharmacology and Therapy of Mercury," Albert Civins; "Saryngismus Stridulus," S. S. Berger.

The 138th regular meeting of this society was held at 8.30 p. m. at 1006 Rose Building, on Tuesday, October 16. Program: "Symptoms and Diagnosis of Pyloric Stenosis," S. Wasserman; "A Case of Athetose, with Operation," W. G. Stern.

W. E. SAMPLINER, Secretary.



## Academy of Medicine of Cleveland

The forty-first regular meeting of the Academy was held at 8 p. m., Friday, October 19th, 1906, in the Auditorium of the Cleveland Medical Library. Program: (1) Some Remarks on the New United States Pharmacopœia, H. V. Arny, Ph. D.; (2) On the Treatment of Hemorrhage by Immediate Transfusion, with Report of Clinical Cases, George W. Crile, M. D. . CLYDE E. FORD, M. D., Secretary.

### THE OPHTHALMOLOGICAL AND OTOLARYNGOLOGICAL SECTION

The twenty-second regular meeting of this Section was held Friday, October 26th, 1906, at 8 p. m., at the Cleveland Medical Library. Program: (1) Report of two Cases of Paralysis of the Motor-Oculi Muscle, Dr C. C. Stewart; (2) Presentation of Cases, Dr A. R. Baker; (3) Report of Case of Temporo-Sphenoidal Abscess of Otitic Origin, Dr A. H. Marvin; (4) Remarks on the Diagnosis of Brain Abscess of Otitic Origin, Dr C. J. Aldrich. Members are requested to present interesting cases.

JOHN N. LENKER, M. D., Secretary.

### EXPERIMENTAL MEDICINE SECTION

The twenty-eighth regular meeting of the Experimental Section was held at 8 p. m., Friday, October 12th, in the Auditorium, Cleveland College of Physicians & Surgeons, cor. Brownell (East 14th) and Central Ave. Program: (1) The Development of Bone and Its Theoretical Importance, Dr C. Sihler; (2) Some Anomalies and Malformations of Bones, Dr C. A. Hamann. TORALD SOLLMAN, M. D., Secretary.

## St. Alexis Hospital Alumni Association

The forty-fifth regular monthly meeting of the St. Alexis Alumni Association was held at the Hollenden, on Thursday, October 4th, 1906, at 8.30 p. m. Program: Report of Case of Intracapsular Fracture of the Femur, C. E. Corlett, M. D.; Report of two cases: (1) Acute Blindness; (2) Diphtheria, Joseph V. Kofron, M. D.; Report of Meetings and Exhibits of Anti-Tuberculosis League held in Cleveland, Sept. 11th-19th, Robert E. Lawlor, M. D. MYRON METZENBAUM, M. D., Secretary.

The forty-sixth regular monthly meeting of the St. Alexis Alumni Association was held at The Hollenden, on Thursday, November 1st, 1906, at 8 p. m. Program: Chronic Bronchitis, W. J. Irwin, M. D.; Technique of Opening Abscesses in Quinsy, J. E. Cogan, M. D.; Report of Two Cases of Eclampsia, W. P. Chamberlain, M. D.

MYRON METZENBAUM, M. D., Secretary,  
1242 Willson Ave.

## Ohio State Pediatric Society

The State Pediatric Society has completed arrangements and program for one of the most successful meetings ever held. There will be a one day's session held in Youngstown, Ohio, Wednesday, December 5. Wm. C. Hollopeter, of Philadelphia, a most eminent pediatricist, will give a special address which will be followed by a banquet in which the whole

Mahoning Medical Society will join. The committee of arrangements at Youngstown are Drs R. E. Whelan, C. C. Booth and R. D. Gibson. The meeting will be held in the Y. M. C. A. Building. Headquarters at "The Tod House." W. W. Pennell, President; J. Morton Howells, Vice President; J. M. Moore, Secretary; Myron Metzenbaum, Treasurer; Council, S. W. Kelley, D. S. Hanson, E. W. Mitchell, J. M. Howells and W. W. Pennell.

#### PROGRAM

"The Pediatrist," W. W. Pennell, Mt. Vernon.

"The Infant and The State," T. Clarke Miller, Massillon.

"Appendicitis in Children," A. F. House, Cleveland. First Discussion, M. J. Lichty, Cleveland.

"Medical Treatment of Appendicitis," J. Morton Howells, Dayton. First Discussion, G. S. Peck, Youngstown.

"Surgical Treatment of Empyema," S. W. Kelley, Cleveland. First Discussion, C. C. Booth, Youngstown.

"The Second Summer," C. L. Patterson, Dayton. First Discussion, J. J. Thomas, Cleveland.

"Therapeutic Memoranda," E. W. Mitchell, Cincinnati. First Discussion, J. B. McGee, Cleveland.

"Tubercular Glands of the Neck," Wm. Clarke, Cleveland. First Discussion, D. S. Hanson, Cleveland.

"The Demand for Medical Inspection of Schools," J. F. Lorimer, Chillicothe.

"Indigestion in Children," J. Dudley Dunham, Columbus.

"Enteralgia," S. P. Wise, Millersburg.

### Book Reviews

The Practical Medicine Series, comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology. Chicago Post-Graduate Medical School. Series 1906. Chicago. The Year Book Publishers, 40 Dearborn Street.

We have to acknowledge the first six volumes for the current year of the Practical Medicine Series published by the Year Book Publishers in Chicago. This series has been so long before the profession as to require no extended comment. Under the editorial direction of Dr Gustavus P. Head a high standard in the editorial supervision of each volume is assured. Volumes I and VI of this series are devoted to General Medicine, being edited by Dr Frank Billings and Dr J. H. Salisbury. Volume I reviews the diseases of the respiratory organs, diseases of the circulatory organs and of the blood and blood-making organs, general infectious diseases, the metabolic diseases and diseases of the ductless glands. Volume VI considers typhoid fever, certain other infectious fevers and the diseases of the gastro-intestinal tract, and includes also a brief resume of the literature of syphilis of the liver, and diseases of the pancreas and peritoneum. A short review is devoted to the subject of abdominal and epigastric pain, and to tuberculosis of the thoracic duct.

Volume II is devoted to surgery and is edited by Dr John B. Murphy. This volume contains over 550 pages and is really an exhaustive review of the literature and recent advanced work of interest in general surgery. All the new methods of treatment and the most important

methods of technic as well as the new instruments and methods of procedure have been carefully described. We note the description of stovaine anesthesia carefully described with especial attention to each detail, but without, in our judgment, sufficient attention being given the risks of this method of procedure.

Volume III, devoted to the ear, eye, nose and throat, is edited by Dr Casey A. Wood, Dr Albert H. Andrews and Dr Gustavus P. Head, the editor of the series. A very complete review of the literature of the eye, ear, nose and throat are given in this volume.

Volume IV, devoted to the subject of gynecology, is edited by Dr E. C. Dudley and Dr C. von Bachelles and covers in a very thorough and exhaustive way all the recent literature upon the subject. The illustrations throughout this volume are numerous, sufficiently diagrammatic and on the whole most satisfactory.

Volume V, devoted to obstetrics, is edited by Dr Joseph B. DeLee. The same standard of excellence noted so briefly in the volumes reviewed above is evident everywhere throughout this work. The editor has gone extensively into the literature of the physiology and pathology of pregnancy, considering also operative obstetrics and the puerperium. Part four is a brief review of the literature devoted to the new-born.

Each of the volumes noted above contains an index of subjects as well as authors, which makes them extremely valuable in use for cross reference.

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Abbott's Bacteriology. The Principles of Bacteriology. A Practical Manual for Students and Physicians. By A. C. Abbott, M. D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene in the University of Pennsylvania. New (7th) Edition, enlarged and thoroughly revised. In one 12mo volume of 689 pages with 100 illustrations of which 24 are colored. Cloth \$2.75 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

The seventh edition shows a successful attempt of the author to keep the book up to date, a difficult matter with a subject so constantly advancing and changing. The elision of certain less important varieties to give space for the new material and the discussion of the advances in infection and immunity with the practical results so far obtained add greatly to the value of the book. The text is clear and the type excellent, while the volume is still kept in such size that it can be conveniently handled.

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Green's Pathology. Tenth edition. A Text-book of Pathology and Pathological Anatomy. By T. Henry Green, M. D., F. R. C. P., Consulting Physician to Charing Cross Hospital, London. New (10th) edition. Thoroughly revised by W. Cecil Bosanquet, A. M., M. D., F. R. C. P., Assistant Physician to Charing Cross Hospital. Octavo, 606 pages, 348 engravings and a colored plate. Cloth, \$2.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This edition is similar to the last in general, and suffers in the same way from the inadequacy of the illustrations, both in number and in excellence. The improvements lie in the direction of increases in the newer subjects, such as immunity, and of animal parasitology. The chapter on nervous diseases is unusually full though undue space has not been given to it. The text is readable and interesting and the arrangement convenient.



Chemistry: General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia. A Manual of the Science of Chemistry and its Applications to Medicine and Pharmacy. By John Attfield, F. R. S., M. A., Ph. D., F. C. S., etc., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. New (19th) edition, specially revised by the Author to accord with the New U. S. Pharmacopœia, edited by Leonard Dobbin, Ph. D., F. I. C., etc., Lecturer on Chemistry in the University of Edinburgh, etc. 12mo, 760 pages, illustrated. Price: cloth, \$2.50 *net*. Lea Brothers & Co., Philadelphia and New York, 1906.

Among the many works devoted to the consideration of general chemistry, including the field covered by medical and pharmaceutical chemistry, no single volume has perhaps been accorded the same measure of success as has this work of Attfield's. The original edition appearing in 1867, the work has since this time gone through 18 subsequent editions, this the last being the 19th. The entire subject of general chemistry is included and there is an exhaustive discussion of organic chemistry, toxicology and medical chemistry generally. The work has been brought down to date for American students by the use of the last revision of the United States Pharmacopœia. The numerous tables introduced throughout are extremely valuable and helpful. To any one who wants within the compass of a small volume the sum of the important facts of organic chemistry and toxicology, as well as to the student interested in the more elementary chemical analyses, this work is to be commended.

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### Books Received

Rhythmotherapy, or a Discussion of the Physiologic Basis and Therapeutic Potency of Mechano-vital Vibration; to which is added a Dictionary of Diseases, with Detailed Suggestions as to the Technic of Vibratory Therapeutics, with Illustrations, by Samuel S. Wallian, A. M., M. D., Chicago, Quелlette Press, 1906. Price \$1.50, postage 10 cents.

A Text-book of Histology, by Frederick R. Bailery, A. M., M. D., Adjunct Professor of Normal Histology, College of Physicians and Surgeons, Medical Department, Columbia University, New York City. Second and revised edition. Profusely illustrated. New York. William Wood Co. 1906.

The Medical Student's Manual of Chemistry, by R. A. Witthaus, A. M., M. D., Professor of Chemistry, Physics and Toxicology in Cornell University. Sixth edition. New York. William Wood & Co. 1906.

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The Tri-State Chess Association, an association of over 400 players, most of whom reside in the Mississippi Valley, is arranging a correspondence match at chess, the Doctors vs. the Laity. It is desired to have physicians from every section of the U. S. engage in this match. Therefore, every chess loving physician is urged to become a consultant in the case. The match will begin early in November, entries accepted until January 1. All who will play are urged to send name and address to the president, stating the number of games they will take on. There is no fee attached to the match. Address, Dr Van Nuys, President, Lorain, O.

## Medical News

Bruce Giffen, of Fairport, has recently moved to Colerain.

J. B. Ray, of Harrisonville, is soon to locate in Portsmouth.

J. N. Calhoun and family have moved from New Galilee to Lisbon.

D. W. Boone, of Bellaire, is at home again after a month's western trip.

W. B. Hubbell and wife, of Elyria, are in New York for a month's stay.

Fred McKinnery, of Leetonia, is in Chicago taking a post-graduate course.

J. M. Davis, of Chillicothe, is confined to his home with an attack of pneumonia.

J. H. Pake and wife are in Oklahoma, Miss., where they will spend several weeks.

T. M. Sabin, of Warren, has returned from a three weeks' trip through the west and southwest.

Joseph Blickensderfer, wife and son Joseph, of New Philadelphia, are in Lebanon, Mo., where they will spend several weeks.

The Ohio Valley Medical Association will meet at Louisville, Ky., on November 14 and 15, Louisville College of Dentistry.

R. H. Wilson, of Martins Ferry, who has been in New York for five weeks taking a post-graduate course, is at home again.

S. G. Sewell and wife, of Greenville, have gone to California to spend the winter, where it is hoped the Doctor will regain his health.

O. S. Wood, of Haydenville, has sold his practice to C. E. Little, of West Union. Dr Wood has not yet decided where he will locate.

A. B. Smith and wife, of Wellington, expect to go to Baltimore to spend the winter. Dr Smith will take a course in the Johns Hopkins Institute.

The Union District Medical Society met October 25th in Hamilton. The Society is composed of Butler County, Ohio, Rush, Union and Fayette Counties, of Indiana.

Andrew Bice, of Spencerville, who has been taking a special course at Chicago, expects to leave soon for England, where he is to further his studies of the eye and ear.

D. W. Schumaker, of New Bedford, who has been taking special work in surgery at Columbus and Chicago for the past ten weeks, is contemplating locating in Canal Dover.

C. H. Neilson, a Delaware county graduate of O. W. U., and of Chicago University, spent three months in Berlin and will open an office in St. Louis; he is also to be a professor in a medical college there.

The Boyd County Medical Society met with the Lawrence County Medical Society October 25. Papers were read by W. L. Gambill, of Ashland, J. D. Mutters, of Rush, and J. W. Kincaid, of Catlettsburg.

The regular monthly meeting of the Delaware Medical Society was held October 5. The address of the evening was made by Dr Rodepauch, of Columbus, his subject being an intelligent and interesting treatment of "Nervous Diseases."

A meeting of the Huron County Medical Society was held October 11. Dr Ladd, of Cleveland, was present and gave an interesting talk on "Exophthalmic Goiter." Dr Lower, also of Cleveland, who is state supervisor, gave a talk on the general condition of the medical societies throughout the state.

The Tuscarawas County Medical Association met at Uhrichsville city hall, October 3, with a good attendance. The physicians listened to talks on "Eczema," by Charles J. Sheppard, Columbus; "Genital Hemorrhage," by S. J. Goodman, Columbus, and "Typhoid Fever," by E. D. Moore, New Philadelphia.

The annual meeting of the Marion County Medical Society was held October 16. Program: "Mental Development," Dr Beebe, of Cincinnati: Discussion, Dr Mills, Marysville; "Brain Tumor," Dr Hopper, Cincinnati: Discussion, Dr Hamilton, Columbus; "Internal Medicine," Dr Rankin, Columbus: General Discussion.

The Montgomery County Medical Association met October 5, F. C. Gray presiding. "Pneumonia" was the subject discussed at the meeting; D. C. Mills, of New Madison, reading a paper on "The Diagnosis of Pneumonia"; Webster S. Smith read a paper on "Prophylaxis and Treatment of Pneumonia," and a number of physicians joined in the discussion.

The Governors of the New York Skin and Cancer Hospital announce that L. Duncan Bulkley will give an eighth series of clinical lectures on Diseases of the Skin, in the out-patient hall of the Hospital on Wednesday afternoons, commencing November 7th, 1906, at 4.15 o'clock. The course will be free to the medical profession. William C. Witter, chairman of the Executive Committee.

The Williams County Medical Society held its fourth quarterly meeting for 1906, October 11. Program: "Drugs and Drugging," Albert Hathaway, Edon; Discussion, Drs Walker, Weitz, Wilber; "Conservatism in Emergency Surgery," W. L. Hogue, Montpelier: Discussion, Drs Alwood, Back, Bechtol; "The Physician and his Legal Relations," F. M. Frazier, Bryan: General Discussion.

Butler County Medical Society met October 10. Three very excellent papers were under consideration during this meeting, announced as follows: First, "A Consideration of one of the Causes of Death from Obstruction of the Bowels, and its Treatment," by Sigmar Stark, Cincinnati, Ohio. Discussion opened by F. M. Barden. Second, "Fracture of the Lower Jaw; its Treatment; with presentation of case," by Frank M. Fitton. Third, "Fracture of Neck of Femur, with Practical Demonstration of its Treatment," by D. B. Bundy, Middletown, Ohio.

A meeting of the Union District Medical Association was held October 25. Dr Hawley, of College Corner, is president of the association, and Dr Houghland, of Milroy, is secretary. Dr W. H. Hawley, College Corner, Ohio—President's address. Dr W. S. Alexander, Oxford, Ohio—Natural Immunity and Prevention of Infection; discussion opened by Dr J. N. Study, Cambridge City, Ind. Noon Hour:—Dr Garrett Pigman, Liberty, Ind.—Treatment of Typhoid Fever; discussion opened by Dr W. S. Salyer, Gratis, Ohio. Dr Geo. H. Grant, Richmond, Ind.—The Removal of Sections of the Calvarium for the Relief of Disease or Injury of the Brain; with Report of Cases; discussion opened by Dr Frank Barden, Hamilton, Ohio. Dr Merle Flenner, Hamilton, Ohio—The Young Doctor; discussion opened by Dr J. E. Cavey, Eaton, O. Election of officers. Adjournment.

The Ninth District Medical Society, comprising ten counties in southern Ohio, met November 8 in annual session. This meeting was held in conjunction with the quarterly meeting of the Tri-State Medical Society. The following is the program for the Ninth District Society. The program for the Tri-State Society will be published later. Pelvic Tumors and their Differentiation—Flint Cline, Portsmouth, Ohio; to open discussion, O. W. Robe, Portsmouth, Ohio. The Nature of Our Recent Epidemic—Jehu Eakins, Gallipolis, Ohio; to open discussion, J. B. Alcorn, Gallipolis, Ohio. Obstruction of the Bowels, Symptoms and Management—D. B. Hartinger, Middleport, Ohio; to open discussion, L. F. Roush, Pom-



eroy, Ohio. Pneumonia in Children—John F. Morgan, Jackson, Ohio; to open discussion, John E. Sylvester, Wellston, Ohio. Contract Practice and Life Insurance Examinations—O. U. O'Neil, Ironton, Ohio; to open discussion, W. F. Marting, Ironton, Ohio. The papers were limited to 15 minutes each, as we will have a joint meeting with the Central Tri-State Medical Society.

The sixth regular and first annual meeting of the Geauga County Medical Society was held at the Burton House, October 10, with 13 in attendance, Chester, Troy, Middlefield, Chardon, Auburn, and Burton being represented. The business of the afternoon consisted of the hearing of the report of the committee appointed to draw up a fee bill, which, after some changes, was adopted by vote of the Society. Then followed the election of new officers for the ensuing year, as follows: N. F. Schwartz of Auburn, for president; Mary Goodwin of Chardon, for secretary and treasurer. A hearty vote of sympathy was extended P. J. Edwards of Montville, who is quite ill with pneumonia. Teed-Cramton of Burton then gave a paper on the treatment of Cardiac Hypertrophy and Dilatation, which was followed by a general discussion on this important subject. A second paper was to have been given by O. A. Hopkins of Middlefield, but because of the lateness of the hour it was decided that Dr Hopkins' paper should be reserved for the special meeting in November.

The thirty-first regular session of Lake County Medical Society was held in the assembly room of the Parmly Hotel, Monday evening, October 8. Prof. William E. Lower, of Cleveland, councilor of the Fifth District, was present. The district includes Cuyahoga, Lake, Ashtabula, Trumbull, Geauga, Medina, Lorain, Erie and Huron counties. Dr Lower is one of the lecturers in the College of Physicians and Surgeons in the city and surgeon to two of the hospitals. Those present at the session were Drs House, Sherman and Hawley, of Painesville; Dr Quayle, of Madison; Dr Lowe, of Mentor, and Dr Moore, of Willoughby. The councilor first rendered a report showing that every county in the state was thoroughly organized, each having an active society, that over the county society is a state society and over the state is the national society, known as the American Medical Association. The object of the whole is the dissemination of knowledge in the art of healing and the suppression of that which is not of a wholesome character. Lake county was highly complimented for its activity in the acquisition of progressive intelligence. After a brief talk on the work pertaining to the office of councilor, Dr Lower presented a paper on "Hernia." In this it was shown that one out of every twenty to thirty people suffer from hernia in some form, that all are dangerous and a menace to the physical ability of those afflicted. He demonstrated from personal experience that operations for the radical cure of hernia were among the safest—that operation before the age of five years was seldom necessary. The paper was to the point in every particular from first to last. After a discussion of hernia, in its various forms, a vote of thanks was tendered the doctor for his able presentation of the subject. The councilor announced that Dr McCormick, the itinerant lecturer of the American Medical Association, would visit the district in November and deliver a series of popular lectures, to which the laity are invited, that on the afternoon of November 27 a joint meeting of Lake and Ashtabula counties would be held in Ashtabula. The next session will be held November 5, when Dr F. S. Clark, of Cleveland, will address the society.

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## Deaths

J. W. S. Goudy, of Newcomerstown, died at his home at the age of 73.  
Francis Volney Cox, of Martinsville, died at his home September 27.

# The Cleveland Medical Journal

VOL V

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No 12

## Newer Ideas of the Causes and the Treatment of Bright's Disease

BY ALFRED C. CROFTAN, CHICAGO, ILL.

(Author's Abstract).

The terms Bright's disease, nephritis and albuminuria are often employed synonymously. This is wrong. For in Bright's disease in the modern sense, the changes about the heart and the arteries predominate, and not infrequently precede the development of the renal signs. In all other forms of nephritis there are either no changes about the cardiovascular apparatus at all or they are demonstrably consecutive to the nephritis. Albuminuria finally is a sign that generally accompanies any form of nephritis but that may also occur without any renal changes whatsoever.

High arterial tension with corresponding changes about the heart and arteries, then, is the determining feature of Bright's disease. The circulatory disturbances must be imagined to lead to nutritional disorders in a number of organs; and it is clear that those organs in particular are most apt to become affected that are supplied by end arteries. Chief among the latter are the kidneys, the retina and the brain; and as a matter of fact these three organs are most commonly involved in Bright's disease together with the cardiovascular apparatus.

In true Bright's disease the kidneys, as indicated, are by no means always involved first, although the first determinable signs may appear in the urine. If the dimensions of the heart and the blood-pressure were studied as carefully as a routine measure in every case as the urine is, (or should be) the cardiovascular changes would be found much more often before nephritic

changes develop than is actually the case. This at least has been my experience.<sup>1</sup>

It seems almost paradox to state that Bright's disease may occur without nephritis; but this is actually the case if we accept the newer conception of Bright's disease outlined above. It is altogether unfortunate that the term Bright's disease is retained in our medical nomenclature at all, for what Richard Bright originally described and what we understand by Bright's disease today are radically different clinical entities.

The causes that determine the high blood-pressure and the cardiovascular changes that usher in every case of Bright's disease are still obscure. It is probable that manifold factors may become operative to produce this syndrome. I am an ardent adherent of the idea that circulating toxins must, in most cases, be incriminated with raising the blood-pressure; the toxins may be endogenous or exogenous in character, *i. e.* they may be introduced into the circulation from within by some deep seated perversion of the general metabolism or they may be introduced from without, *e. g.* from the gastrointestinal tract by the abnormal disassimilation of the gastric and intestinal contents.

The former event is probably less frequent than the latter; it is, moreover, less tangible and consequently not so easily remediable. In many cases a deep-seated hereditary element undoubtedly plays a commanding role, and here the metabolic side of the question urgently calls for elucidation. Some steps in this direction have been taken and a number of pressor principles have been isolated from among the intermediary products of intracellular disassimilation. I call attention for instance to the purin bodies, precursors of uric acid, that possess marked pressure raising powers and that are capable, as I showed some years ago,<sup>2</sup> of producing many of the cardiovascular signs of Bright's disease in animals and also some of the renal changes.

In the bowel contents, on the other hand, a large number of pressor bodies have been found, especially when putrefactive processes are allowed to go unchecked. These bodies may directly enter the circulation in small quantities over long periods of time and produce chronic increase of the blood-pressure, or they may lead indirectly to intoxication of the liver cells that try to arrest them and thereby cause a condition of hepatic insufficiency that in itself again leads to the flooding of the blood stream with a variety of abnormal products capable of causing high arterial tension and irritation of the kidneys.<sup>3</sup>



Treatment of Bright's disease must therefore concern itself with counteracting, so far as that is possible, the formation of these various groups of toxic bodies. This can be done by paying strict attention to the diet and by promoting intestinal antisepsis by various means, the details of which cannot be discussed in this brief abstract. The best remedies for the latter purpose I have found to be the bile acid salts<sup>4</sup> and the sulphocarbolate of zinc.<sup>5</sup> That intestinal putrefaction is being held in check can be determined by the reduction or disappearance of the aromatic sulphates (with indican as their chief representative) from the urine, also from the disappearance of the conjugate glycuronates and the compound glycocolls. Bismuth subnitrate when given by mouth, together with intestinal antiseptics, moreover, should not color the stools black if intestinal putrefaction is being held in check.

The treatment of the small group of cases of Bright's disease that is not due to intestinal derangement but to metabolic perversions of an obscure type, usually occurring in young subjects, is much more difficult because nothing very tangible, in the obscurity of our present knowledge, presents itself for treatment.

In this group of cases one is limited in one's endeavors to purely symptomatic treatment. The latter, however, does not consist in the treatment of the renal complications alone but more generally in the treatment of the cardiovascular signs; and to be successful in the treatment of Bright's disease the renal idea should be largely relegated to the back ground and attention bestowed upon keeping down the blood-pressure and regulating the action of the heart. A case of Bright's disease should, broadly speaking, be treated as a heart case and not as a kidney case; for most sufferers from this disease die not from the nephritis but from failure of the heart and from the complications that are gendered thereby and that differ in no material respect from the secondary signs seen in any case of failing cardiac compensation.

The measures at our disposal for regulating the blood-pressure are dietetic, hydrotherapeutic and medicinal. The diet should be selected in such a way that no preformed pressor principles are ingested and the minimum of food is eaten that leads to the formation of such bodies; chief among these articles are nuclein containing foods and foods containing extractions, for the latter incorporate the purin bodies and the former

lead to the formation of these purin bodies in process of intracellular disassimilation. Alcoholic beverages of all kinds should be eschewed. Tea and coffee and cocoa are also bad. Smoking is always detrimental.

Hydrotherapeutic measures are of signal value,<sup>6</sup> especially the simple warm bath every evening. The details of these measures cannot be described within the narrow frame of this abstract.

Of medicines the best of all are the nitrites and preparations of nitroglycerin. They are rarely needed, however, if sensible hydrotherapy is instituted; and it is best to keep medicines in reserve for emergencies in this as in any other chronic disorder. The use of very small doses of digitalis, *i. e.* of one or two drops of a good tincture throughout the course of the disorder, or at least for many months at a time, is of great value, inasmuch as the drug given in this way seems to regulate the heart's action, to protect it, one might imagine, from the abnormal stimulating effect of circulating toxins. The administration of such small doses even for long periods of time, in my experience, does not deprive the heart of a vigorous digitalis stimulation should it become necessary to use large doses in emergencies later on.

That in addition to all these measures the general nutrition of the patient should be kept up carefully by an almost mathematical regulation of the diet<sup>1</sup> and the ingestion of sufficient calories, need hardly be emphasized. Failure to do this, as for instance when patients with Bright's disease are placed for long periods of time on an exclusive milk diet<sup>7</sup> can, I believe, be incriminated with having destroyed many a sufferer from this disease. These victims of a dogma are literally starved to death and would probably have fared better had they adopted no dietetic regime at all. By this it is not intended to say that milk is not an excellent article of diet in this disorder, but it is not fitted for various reasons to be the exclusive pabulum for more than a few days at a time.

The psychic element in these patients finally must not be forgotten. They should be taught to take a hopeful view of their condition in order that mental depression, worry or fear may not derange the digestive and assimilative functions of the organisms and above all interfere with the function of the liver<sup>3</sup> and in this way lead to a self intoxication that in any cardiovascular and cardiorenal disorder is to be strenuously avoided.

In regard to the so-called surgical treatment of Bright's disease, that has of recent years acquired some notoriety, I quote as follows from another article.<sup>5</sup>

Splitting of the kidney capsule, or decapsulation of the organ, for the cure of Bright's disease is altogether irrational. The temporary relief of tension may improve the blood supply to the kidneys, and hence restore for the time being some functional activity to diseased epithelia; and this improvement in the renal function may become manifest by a reduction of edema, by a transitory decrease in the albuminuria, the disappearance of formed elements (casts, etc.) from the urine, and an increase in the excretion of solids and of water.

Bright's disease, however, as we have seen in the preceding paragraphs, is a systemic disorder, and the nephritis is merely one of its symptoms. Any treatment of the kidneys alone, whether surgical or otherwise, is therefore purely symptomatic, and can in no sense be regarded as curative. One might as well amputate the rose spots in typhoid fever and expect to cure the disease.

It is not surprising to find, therefore, that no true case of Bright's disease has ever been permanently benefited by operations on the kidneys. The procedure is mentioned in this place merely to be condemned.

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## Ten Types of Ophthalmic Charlatanism

BY GEORGE M. GOULD, M. D., OF PHILADELPHIA.

1. *The Confidence-man as Spectacle Peddler.* For a number of years bands of criminals have been "working" the smaller cities, villages, and country districts, within a radius of several hundred miles of Philadelphia, in the following way: They generally go two or three together, the accomplices staying in the background to receive stolen goods, money, or to help in any way. The chief has great skill in posing as the son of some well-known Philadelphia oculist, or as the physician sent by Wills' Hospital



to see and treat the victim. Poor, half-blind, trustful people are duped, and on one pretense or another are wheedled or forced into paying absurd sums of money for a worthless pair of spectacles, or for a prescription. Money, watches, jewelry, etc., are then stolen and the jailbirds disappear. I have many times through the police come near catching one of these scamps who for years has posed as my son, and has cheated people out of sums ranging from a few dollars to one hundred dollars. His cunning and elusiveness are almost admirable.

2. *The Surgical Criminal* I have heard about several times, and he also escaped me twice the last summer. He is "sent by some distant friend to take the cataracts off his friend's eyes." He will do it for as little as he must, as much as he may get. From poor farmer-folk he usually secures from 10 to 25 dollars. His outfit is some irritating powder or dust, a pair of little forceps, and a piece of leather about one-fourth of an inch in diameter. After getting his fee, he pinches the patient's lids or conjunctiva enough to make a profound impression; he then fillips some powder into the eye, and dextrously shows the "cataract" to the family,—and disappears.

3. *The Itinerant "Professor," or "Scientific Optician,"* heralded by handbills, and stopping for a few days at———Hotel, "examines eyes free," and sells a pair of miraculous spectacles costing a few cents, for as many dollars as the gullability of the trustful will permit. He "grinds his own lenses"; he talks grandiloquently; if this pair does not do all he swears it will do, he guarantees satisfaction gratis at his next regular visit. He has ophthalmometers, gives the name and address of his city headquarters, etc. There are many grades and variants in this class, ranging from the agent of obscure or well-known optical houses in the cities to the spectacle and eye-glass venders who sell "crystal" and magical lenses of miraculous powers.

4. *The Itinerant Ophthalmologist, with a real medical diploma,* chooses smaller cities as his hunting grounds. He has knowledge sufficient to play the scientific and optical game to perfection, and his instruments, pictures, and free lectures are so adroitly chosen and managed as to deceive all but the really expert. But he has no more conscience than his brethren of types 1, 2, and 3. He is after big game. He operates for any and all surgical diseases, but tenotomy, of course, for heterophoria is his chief reliance. One succeeded recently in getting several

thousand dollars out of one family before the mental eyes of the principal patient were opened to the character of the fraud.

5. *The Jeweler Optician of the Village or small City* will also "examine eyes free," and "fit glasses." Of course he does not "examine eyes," or diagnose refractive errors correctly; generally he does not "fit glasses" optically or as a good optician should fit them. Never did one prescribe such lenses as would in the young stop eyestrain reflexes. Most of them are commercially honest, and sell glasses only because their rivals do. Frequently they are as accurate in their refractions, and as skillful in a medical sense, as the Professor of Ophthalmology in the neighboring Medical College, or as the famous oculist of the place. This is because the Professor does not himself use a cycloplegic; refracts, if at all, with the ophthalmoscope or the ophthalmometer only, "cures by taking glasses off," and spends his leisure in concealed advertising, and in ridiculing "hobby-riding refraction cranks." The Village Optician is the least criticisable of the ten, except the first two or three. He sometimes helps a poor presbyope a little; he sometimes recommends an eyestrain sufferer to a good oculist; sometimes he has been known to smile and wink at his own ophthalmometer,—a thing Professor Big Wig would not be caught doing; one or two can really adjust a pair of spectacles pretty well.

In view of the fact that there are millions of farmer and village folk in this country absolutely prevented from visiting the city oculist, and further that if they should sacrifice their savings of a year or of years to do so they might fall into the hands of the charlatan refractionist of the city, I think the better class of the more conscientious jeweler opticians have their use. Their function will last until ten thousand capable physician refractionists find their work in the remote country districts, and until the city refractionists secure the requisite consciences and skill. In the meantime, not only permitted but encouraged by professional neglect and prejudice, these lay refractionists will so entrench themselves behind laws and in the public confidence that the M. D. refractionists will by and by have to struggle for a lifetime for their proper and professional places. In the meantime, too, thousands of eyes will be ruined because of the optician's want of medical knowledge. In the third meantime that bitter but actual truth will grow in vogue that the people will believe anything and trust anybody which the profession hates.

6. *The "Doctor of Optics," "Graduate Optician," "Ophthalmoneurologist," "Doctor of Refraction," "Ophthalmotrician,"* or whatever other title he may assume, is another product of the neglect and quackery of the medical profession. He too worships the ophthalmometer, pretends to refract without a mydriatic, etc. But he does not go to the extreme of poohpoohing eyestrain reflexes, and so does not harm his patients as much as do the tenotomomaniacs, and some of the most respectable city Professors and Surgeons, who scorn the refractionist. Indeed, as the "graduate optician, etc.," sometimes does relieve eyestrain, as he almost always sincerely *tries* to do so, he often does succeed more accurately than the others in prescribing for eyestrain. Right desire often ends in ability. He therefore emphasizes the role of eyestrain in producing systemic disease because he has often cured in such cases. He will therefore do more good than the dignified poohpooher who with degrees and professorships ignores refraction, misdoes it, and uses his office as a sort of surgical sand-screen. Like all refracting opticians, he really assumes the physician's office. But as we all know, the knowledge and the function of the two professions are different, and no one person can have or fill both.

7. *The Department Store Opticians, and City Eyes-Examined-Free Opticians* are a "pretty bad lot," because they pretend to give some things with the lenses they sell which they know they do not give, and the chief thing they do pretend to give they know is not supplied. They claim to give correct refraction, and also a mysteriously incorporated medical quality or diagnosis. Of course as regards physiologic optics, their glasses are always and without exception wrong, and so far as ocular pathology is concerned, only a minority of their dupes are deceived. The one thing which as opticians they should supply, correctly fashioned, and rightly adjusted spectacles and eyeglasses,—these, absolutely are not to be had of the eyes-examined-free optician. Money-making, regardless, is the sole justification of these frauds. Not a man of them, in cities where medical men aplenty exist, should be thus allowed to trifle with the vision, health, and lives of the people. No person should wear a pair of lenses without the diagnosis and prescription of a medical man. The physician oculist may be wrong, in some cities they may generally be as bunglesome and commercial as the optician, but it is only the M. D. degree which can be held responsible for ruinous blunders; and only that degree insures that glaucoma, and a score of other



diseases may not be mistreated by glasses alone; and only that degree gives promise that we may finally elevate ourselves out of the thousandfold ophthalmic diabolism of the present time to some sort of ophthalmic civilization. The optician who never sells a pair of lenses without a physician's prescription makes and fits glasses correctly. He is an honorable and deservedly successful business man, and he and his expert calling is bound to grow in honor and dignity. If city physicians would absolutely forbid their patients to go to the hypocrites who play them false by double-dealing there would be a more speedy end of our ophthalmic barbarism. It is as absurd, even more so, as allowing patients to go to patent medicine drug stores with our prescriptions of drugs. The interests of the community are clearly against both practices.

8. *The Physician Turned Quack in partnership with the Opticians.* Many of the eyes-examined-free department stores and city opticians have a "physician in attendance." Some of these "physicians," "Oculist-doctors," "M. D. Ophthalmologists," etc., have secretly or openly become hired attendants of their commercial masters, selling their little or their sham medical ability (wholly without medical value, of course), like Keely Cure or Oppenheimer physicians, to the highest bidder. A large number are the servants of lay "Optical Schools," "Refraction Colleges," "Ophthalmoneural Institutes," "Ophthalmic-Doctor" degree-sellers, and all the sorry rest. One, well known, is busily engaged teaching ignorant mechanics, workmen, errand-boys, etc., by lectures and private instruction, nights and Sundays, to become "expert refractionists." And these fellows are allowed to retain their degrees, and to belong, not only to the medical profession, but to medical societies and associations. This sort of professional parasitism must also be met some time, met and conquered. when we secure organization and when organization gets a conscience.

9. *The Tenotomomaniac* who operates on the eye-muscles for Morton's Toe, Rheumatoid arthritis, phlebitis, choroiditis, for all reflex ocular neuroses, for all diseases, for anything you please, is a remarkable product of our time and conditions. For snipping a tendon (or the conjunctiva) he secures several hundred dollars, and for doing it on the same patient a score or more times he charges several thousand dollars. He operates on every patient that enters his office, and no one knows whether the operation is

on the tendon or upon the conjunctiva only. One thing is certain:—a tremendous effect is made upon the patient, his friends, and upon pocket-books. Usually one operation suffices to scare the eye or the patient into noncomplaint or silence. If the subsequent result is good it comes through the correction of the ametropia by means of glasses prescribed soon after the operation. First the fee; second, the operation; third, refract; fourth, credit the cure to the operation. From a careful physician in a distant state I have just received the following letter:

Dr— — — in this town, a specialist in eye diseases, a pleasant man personally, but curiously constituted mentally, so far as his fellow practitioner is concerned, has for some years made, as people call it, a specialty of the eye-muscles, and, when he finds imbalances, which he *finds in a great many cases*, he sends them to Dr — — — — for operation. He claims that Dr — — — — is poor and has never made over ten thousand a year. He has gone farther than that and got another tenotomist into this state as a licensed practitioner and that man comes here every summer and operates indiscriminately on cases Dr — — — — has reserved for him during the winter. This past summer he has been here and, as I hear, performed some 70 operations, most of them without much benefit. Now what shall be done about this charlatanism? How can it be stopped? I hear that this man does not pretend to test the refraction at all, *UNTIL* he has done the operation for the fee. I now have in my office an instance which passes comprehension had I not seen it. A woman of 55 had retinitis with choroiditis and small retinal hemorrhages resulting in metamorphosis; O. D. light perception only; O. S. H. with Ast. He fitted her to lens O. S. getting 0. 7 V.; O. D. did his best getting 0. 2, and then claiming that she had exophoria he operated on both eyes twice with no benefit to the exophoria, nor, of course, improvement to vision of O. D. with its hemorrhages and chorioretinitis. Now why on earth any decent man would operate on muscles to cure or relieve intense photophobia resulting from chorioretinitis, passes my ideas of medical honesty. The condition is due to cardiac disease or an old traumatism of the skull. This is indeed muscle-snipping with a vengeance, is it not?

In the same mail I receive a letter from a critic who urges that the profession must be united against ophthalmic quacks outside of the profession. I answer that this is a most desirable thing, and that I have urged it every year, in season and out of season, for all the years of my life as an oculist. But I add the query: What about the quacks within the profession, shall they be asked to join in the crusade against those outside? Our own little Augean Stable is pretty mirey. Do we care less for the mire than we do for getting the professional stablimg? Good medicine as well as cunning astuteness would appear to counsel the cleaning of the professional stables. The scientific blunder which explains the vogue of the tenotomomaniac is the nonrecognition of the truth that heterophoria is primarily and almost always the

result of uncorrected and malcorrected ametropia. Prevent the eyestrain and the heterophoria is prevented. Neutralize the eyestrain of ametropia and tenotomy is unnecessary. Surgicalizing the effect does not cure the cause. The addition of quackery to the surgery scarcely lessens the evil-doing.

10. *The Ophthalmic Success-hunters, Professional Judges, Consultation-seekers, Presidency-getters, Ring-leaders, etc.,* are as pernicious sources of evil and professional disgrace as are any of the other kinds of ophthalmic charlatans. They flatter every prejudice of their colleagues who send them patients; they frown down all unfashionable truth; they deny every innovation except that one (true or false) which will heighten their fame in the eyes of those upon whose favor their success depends. Far from them to admit or speak favorably of "the eyestrain hobby-rider" and his foibles, because the referers of patients must themselves be allowed to cure the patients of these diseases. Their offices therefore become merely sand-screens for sorting out the surgical practice, which makes money and fame. However small a part surgery is of the true oculist's work it gives the glamor of success. Refraction, the prevention and cure of systemic diseases by means of glasses is infinitely difficult and expert work, requires high powers of mind, and yields little income. The logic is absolute. The overwhelming testimony as to the awful role played by eyestrain in the production of human disease and life-wreckage must be ignored and giped at. And these are they which would unite to crush the poor opticians, and the eyes-examined-free men. Who turned the jewelers into opticians, and who created the department-store opticians? Plainly and bluntly it is official ophthalmology which for thirty years or more has ignored the overwhelming testimony of good medical men as to the role of eyestrain. The question of blameworthiness depends upon motive and scientific-mindedness. Some may be in part excusable because of the possession of unscientific-mindedness, crudeness of judgment, or as the theologians would say, of "invincible ignorance." In the last analysis ignorance and prejudice, when persistent, in supposed scientists, are proofs of unscience and charlatanism. But many are cunning as Mephistopheles and far more ambitious. Some are arrant scoundrels.

At all events they are few, and the great tide of professional opinion is drowning them in oblivion. The mass of oculists are turning their minds to the astounding value of scientific refraction, and everywhere they are permeating to smaller cities and towns;



and they are reporting the good results of their good work. Ten thousand more are needed. The fateful misfortune is that nowhere is it possible to get adequate instruction in the most difficult and delicate of all arts and sciences. We are blundering, the best and worst of us, and stumbling, toward accuracy through pitiful errors and the unnecessary sufferings of many millions of our people. The general practitioners, and especially those of the country and towns, are alive to the reach of the new truth, but the leaders of the cities do not lead, far from it, and with few exceptions the neurologists, gastrologists, gynecologists, and even the surgeons are as hopelessly impenetrable as the antiquated professors of ophthalmology, and the sly hunters after success.

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## A Clinical Study of 210 Cases of Acute Articular Rheumatism

BY JOHN PHILLIPS, M. D., CLEVELAND, OHIO

Since the opening of Lakeside Hospital in 1898, 210 cases of acute articular rheumatism have been admitted to the medical wards on the services of Drs Powell, Lowman, Upson and Cushing, and to these gentlemen I am indebted for the privilege of making this report. One out of every 27 admissions to the medical service have this disease, so that next to typhoid fever and pneumonia it is the most common of the infectious diseases with which we have to deal.

*Etiology:* Occupations which necessitate exposure to wet and cold predispose to rheumatic fever. Many of the patients were previously employed as laborers or as teamsters: In a considerable number, too, there was a history of working with wet clothing or with wet feet for several hours just before the onset of the attack.

In the cold damp weather of the spring months we see the largest number of cases. In January 18 cases of rheumatism were admitted to the Hospital, in February 10, in March 31, in April 31, in May 28, in June 22, in July 12, in August 7, in September 6, in October 12, in November 13, and in December 20. These figures differ very much from the statistics of the London Hospitals given by Dr Cheadle in Albutt's System of Medicine, in which the number of cases was smallest during

the months of February, March, April, May and June, and greatest during September and October.

Eleven children under 12 years of age and 199 adults were affected. In 201 cases where the age was recorded, the number of patients at the different decades was as follows:

From	1 to 10 years	.....	5 cases.....	2.49%
	10 to 20 years	.....	30 cases.....	14.92%
	20 to 30 years	.....	64 cases.....	31.84%
	30 to 40 years	.....	55 cases.....	27.36%
	40 to 50 years	.....	37 cases.....	18.41%
	50 years upwards	.....	10 cases.....	4.98%
<hr/>				
			201 cases	100.00%

The above figures do not give one a correct estimate of the frequency with which the disease occurs at the different ages, for so often in children the joint symptoms are so slight that they are entirely overlooked and therefore do not come under the care of a physician. Furthermore, many of the cases recorded under the last four groups have had previous attacks. However, the statistics emphasize the greater susceptibility to attack in youth and early adult life.

Adult males through their occupations are much more exposed to wet and cold, and, therefore, among them the disease is more prevalent. One hundred and forty-two males and 68 females were affected—a proportion, approximately, of 2.1 to 1. Until adult life the two sexes are about equally affected.

Heredity was a factor met with in seven percent of the patients. Cheadle holds that a hereditary predisposition is found in 20% of children afflicted with this illness. Hospital statistics are valueless in this respect, as many times the point of heredity is overlooked in taking the history, and frequently the laity call many things which are not acute rheumatic fever, rheumatism.

For some time acute articular rheumatism has been classified by writers among infectious diseases. In 1898 Triloubet described an organism, which he obtained from the joints of rheumatic cases, and he called it the micrococcus rheumaticus. His work was confirmed in 1899 by Wasserman, and also by Paine and Poynton, who obtained a similar organism in 18 cases. Further study by Beaton, Walker and Ryffel was made in 1903, and they succeeded in finding the organism in the heart's blood post-mortem, in the urine, and in the joint fluid. The organism is very small and is arranged in pairs and in short chains. Various observers have found that intravenous injections of cultures in rabbits cause fever, wasting, polyarthritis, endocarditis,

pericarditis, septicemia and death. In this country Lewis and Longcope have had similar experimental results. Though this work has not been generally accepted, it gives promise that the definite cause of rheumatism will soon be discovered.

*Symptoms:* Acute articular rheumatism usually manifests itself rather abruptly after exposure to wet and cold. The patient complains of headache, chilliness, and irregular pains in the joints. Soon one or more joints become swollen, hot, tender on pressure, and so painful that the patient will cry out with the slightest jarring of the bed. The disease is as a rule fully developed in 24 hours. The temperature ranges from 100 to 104 degrees, depending on the severity of the illness and the number of joints involved. In none of the cases was hyperpyrexia present. The pulse volume is full and its rate increased to 100 or 120 beats per minute. The face is flushed, the tongue moist but coated with a heavy white fur, the patient is thirsty, the appetite is gone, and the bowels are constipated. The perspiration, as a rule, is very free and is highly acid in reaction. The blood in the acute stage shows a moderate leucocytosis ranging from 12,000 to 20,000. In one patient, where the disease was complicated by pneumonia and endocarditis, the white blood corpuscles numbered 60,000. With the drop in temperature and the subsidence of the acute inflammatory symptoms, the count of the white cells soon reaches normal. Rheumatism soon produces a marked anemia of the secondary type, the hemoglobin dropping occasionally to 45 or 50% and the red blood corpuscles sometimes numbering as low as 3,500,000. The urine is highly colored, scanty, of high specific gravity, and very acid in reaction. Albumin was present in amounts varying from the faintest trace to 1 gram to the litre in 142 cases, or 67%. In the uncomplicated cases, as a rule, only a faint trace was found. Where a greater amount than this was present, there was usually some cardiac lesion. Casts of the hyaline variety were noted in 64 cases or 30.4%. The albumin and casts disappear when convalescence is established.

The joints are swollen, hot, tender, and very painful on motion. There is a reddish tinge to the skin over the joints. Usually several are involved, the disease frequently subsiding in one as another is attacked. It has a tendency to affect the larger joints, viz: knees, ankles and shoulders instead of phalangeal or metacarpal. Effusion into the joint is not common. In the present series the frequency of the different joints affected was



as follows: the left knee in 120 cases, right knee in 115 cases, left ankle in 98, right ankle in 80, left shoulder in 60, right shoulder in 57, left wrist in 53, right wrist in 51, left elbow in 46, right elbow in 39, left hip in 24, right hip in 20, the metacarpal and phalangeal joints of the hands in 32, the metatarsal and phalangeal joints of the feet in 20, the intervertebral and sacroiliac joints each in one case. In only 11 cases was the disease limited to one joint, a factor which is a great help in the differential diagnosis from the other joint affections. A number of times soreness and pain in the muscles accompanying the joint affection was noted.

*Complications:* Endocarditis is the most common complication of rheumatism. Undoubted valvular lesions were present in 63 cases or 30%. In only 28 of these was the endocarditis of recent origin. In 56 or 89% the mitral valve was involved, the aortic valve in 13 or 20.6%. Both aortic and mitral orifices were involved in 11 or 17.4%. The onset of this complication is accompanied by rise in temperature, rapid pulse, pain in the region of the heart, an increase in cardiac dulness, and the development of a systolic murmur at the apex of the heart. It occurs sometimes without such definite symptoms as these, so that the heart should be carefully examined daily. The younger the patient the more likely will endocarditis develop.

Pericarditis occurred in 10 cases, of which two were fatal. In four of these there was effusion into the pericardium of varying amounts. As a rule the effusion is small. The pericarditis manifests itself by the development of severe pain increased by pressure in the region of the sternum, by enlargement of the heart, and by the development of a friction rub in the second and third left intercostal spaces. If there is much effusion the rub may disappear. The area of cardiac dulness should be outlined with a dermatograph or with silver nitrate, so that any change in its area can be definitely determined.

It is difficult to say how frequently myocarditis is present in acute articular rheumatism. Usually it is coincident with an endo- or pericarditis. There were 31 cases in this series in which a systolic murmur was heard either at the apex or base of the heart, with no appreciable increase in the area of cardiac dulness and without the murmur, when present at the apex, being transmitted into the axilla. McCrae mentions the following possible causes for these doubtful murmurs, viz: (1) fever, (2) toxemia, (3) anemia, (4) myocarditis, (5) dilatation and (6) endocardi-

tis. It is probable that in a number of these 31 cases there was some degeneration of the myocardium.

Pleurisy was noted in six cases, one of which was accompanied by effusion. The pleuritic rub is most commonly found in the fifth or sixth left interspace just outside the mammary line.

Pneumonia was present in two cases, one of which was fatal. Tonsillitis developed during the illness or was present before in 38 cases or 18.1%.

Nervous complications occurred in 13 cases. Of these four had delirium, in one of which it seemed to be associated with the giving of salicylates. In another case it assumed the type seen in delirium tremens, the patient having previously had attacks of this disease. Chorea was associated with the present or previous attacks of rheumatism in eight cases or 3.8%. These were all in children or in young adolescents. Serious meningitis was noted at autopsy in one fatal case. This patient, a man aged 33, three days after admission became delirious, his temperature rising to 103 and continuing between this point and 105 until death a week later. He had some retraction of the head and Kernig's sign. As the patient was a foreigner and could not make known when he was toxic from the salicylates, his meningitis may have been due to overdosing as he received 580 grains of sodium salicylate in 29 hours.

Subcutaneous fibroid nodules were observed in four patients—aged 6, 15, 12 and 29 years, respectively. They are most commonly found over the backs of the elbows, at the margins of the patella, and along the malleoli. However, they may occur anywhere over a bony surface as the superior curved line of the occipital bone, the spine of the scapula, the spines of the vertebra, or along the crest of the ilium. In a case in the Hospital at the present time there is a small nodule over the external condyle of the humerus, another in the axillary line over the sixth rib on the right side, and a third over the ensiform cartilage of the sternum. They may be very numerous, one of our cases having 70 in all. They vary in size, being usually as small as a pea, though they may be as large as a hazel nut, and they are freely movable. They are of prognostic importance in that they are generally associated with an endocarditis.

Miscellaneous complications are frequently seen. Erythema multiform was seen about the buttocks and upper part of the thighs in three cases. Rheumatic purpura, appearing as a bright red petechial eruption over both shins and accompanied by

considerable tenderness, was noted in two cases. Urticaria occasionally develops and sudamina are very common because of the excessive perspiration. In one case complicated by pneumonia marked jaundice was present.

*Diagnosis:* The symptoms of acute articular rheumatism in the majority of cases are so typical that there is no difficulty in making a correct diagnosis. The suddenness of the onset, the flushed face, the rise in temperature, the acid perspiration, the polyarticular involvement, and the extreme helplessness of the patient make a very definite picture. Particular stress should be laid upon the fact that the use of salicylates in sufficient dosage to get toxic effects is of great diagnostic value. In our later work we have come to rely more and more on the observation that an arthritis which does not readily yield to the salicylate treatment is something other than acute articular rheumatism. The latter must be differentiated from gonorrheal arthritis, arthritis deformans, acute septic osteomyelitis, septic arthritis, gout and trichinosis.

Gonorrheal arthritis is distinguished by the appearance of the joint, the fixity of the pain, the tendency to affect the smaller joints as the metacarpal and metatarsal, the urethral discharge, which bacteriologically shows the gonococcus or history of previous acute urethritis, and the fact that as a rule only one joint is involved. In some cases, in which there is a gonorrheal septicemia, Thayer and Boggs have shown that it is possible to isolate the gonococcus from blood cultures. The possibility of gonorrheal involvement should always be kept in mind in case of doubtful arthritis.

Arthritis deformans in its early stages offers the most difficulty. In the proof of this fact I have been able to collect from our records five cases, originally diagnosed as acute articular rheumatism, who have been subsequently readmitted to the hospital with unmistakable signs of arthritis deformans. These cases, however, do not have cardiac complications, the temperature as a rule is not so high as in rheumatism, the pain in the joints is not so severe, and unusual joints, as the intervertebral, the sternoclavicular, and the temporomaxillary, are involved. Another important point is that the early cases of arthritis deformans do not yield to the salicylate treatment.

Acute septic osteomyelitis may be distinguished by the fact that the illness is more profound, the leucocytosis higher, and



the disease attacks the epiphysis of the bone instead of the joint itself.

Septic arthritis in children at times offers great difficulty in differential diagnosis. In these cases the temperature is higher than in rheumatism, the prostration is more marked, and generally only one joint is involved. Recently a child three years old was admitted to the children's ward with the diagnosis of acute articular rheumatism. The child looked very ill, its temperature was 103 degrees, the prostration was marked and the right elbow was swollen, hot, very red and painful. The next day an incision was made over the joint and considerable pus, which gave pure cultures of the pneumococcus, escaped.

In gout, the age, sex, occupation and general habits of living are all important in making the diagnosis. It generally affects the second joint of the great toe, which is seldom attacked in rheumatism. In one case the polyarticular manifestations of gout were mistaken for rheumatism, and when he was readmitted a few months later, tophi were found in his ears.

One seldom thinks of trichinosis in connection with the differential diagnosis of rheumatism from other conditions. In the past year, however, two undoubted cases of trichinosis were admitted to the medical wards, with a diagnosis of rheumatism having been made by outside physicians. In these cases the presence of marked eosinophilia, the tenderness limited to the muscles and not affecting the joints, and the finding of the trichinae themselves, by snipping out a piece of the affected muscle, will clear up the diagnosis.

Rheumatism in children differs materially from the adult type. Often there are no joint symptoms, an endocarditis being the first warning that the child has the disease. In taking the history of a child with endocarditis, the physician should always inquire carefully from the mother whether there have been "growing pains," as often this is the only manifestation of rheumatism seen in children.

It is difficult to say what will be the course and prognosis of a given case of rheumatism. If uncomplicated, under active treatment the joint symptoms will disappear in one to three days. If the heart is damaged the course is prolonged and it may leave the patient a confirmed invalid. Six or 2.8% of this series ended fatally. Hospital cases, however, do not come under treatment until late in the disease.

*Treatment:* The patient, clothed in a flannel nightgown,

should be kept at rest in a comfortable bed and should lie preferably between blankets. Abundant drinking of water is necessary to favor elimination and to make up for the fluid lost through free perspiration. Instead of plain water, cream of tartar water may be substituted. The bowels should be opened freely by the administration of calomel followed by a saline and afterwards kept moving regularly by cascara. Where the perspiration is free, the patient can be made comfortable by sponging his body with water to which sodium bicarbonate has been added. The diet at first should consist of milk, although if the latter is not well borne, there is no objection to giving soups, animal broths, rice or tapioca. Because of the great tendency to anemia, the patient should be placed on a liberal diet as soon as the temperature is normal.

Much has been claimed for the alkaline treatment of rheumatism, that it shortens the course, and that it prevents the development of endocarditis by depressing the circulation. Though the alkalis may be useful adjuncts to treatment no drugs give such marked beneficial results as the salicylates. Indeed we have come to look upon them as a specific for this disease. The best form is the sodium salicylate from the true oil of wintergreen. If this disagrees with the stomach, the oil of wintergreen itself, aspirin or salicin may be tried. The hospital routine is to give 20 grains of the sodium salicylate every hour until the patient is toxic, the total amount not to exceed 200 grains. If the patient is then not toxic and the disease has not yielded to treatment, we continue giving the salicylate, watching closely the effect of each dose, until in some cases as much as 300 grains have been taken. There is less likelihood of disturbance of the stomach if the salicylates are given well diluted and in combination with sodium bicarbonate. It is gratifying, indeed, to see the remarkable transformation in the patient. Patients, admitted in the afternoon with a temperature of 103 degrees and joints so painful that they scream with pain if the bed is touched, next morning have a normal temperature and move their joints freely, the pain, tenderness, and swelling having all disappeared. Often, cases, who without benefit have been treated outside the hospital with small doses of salicylates, rapidly clear up when the drug is pushed to its toxic limit. Seldom is the stomach disturbed. The toxic symptoms noted are ringing in the ears and deafness. For a full consideration of the therapeutic and diagnostic value of massive doses of the

salicylates in acute articular rheumatism, the reader is referred to an article by Dr Clarke in *American Journal of Medical Sciences*, September, 1906.

Local treatment of the joints is of secondary importance, though it is very comforting in the acute stage. Oil of wintergreen should be painted on the joints and they should be wrapped in thick cotton wadding. Greater relief is sometimes given by the application of hot stupes of lead and opium, or by the application of menthol and oil of wintergreen ointment.

After the acute symptoms have subsided the local applications are discontinued and 15 to 20 grains of sodium salicylate are given three times a day. To ward off anemia, iron should be prescribed early. The patient should be kept in the recumbent posture for three weeks to avoid cardiac complications. This is especially difficult with the salicylate treatment as the patient feels so well in two or three days that he often demands to be allowed up.

In acute endocarditis and pericarditis an ice-bag should be applied to the chest. The damage to the valves in the former complication may be lessened by prolonged rest in bed and by the use of small doses of potassium iodid in the late stage. If the effusion in pericarditis becomes large, paracentesis is indicated. The use of blisters over the sternum hastens the absorption of the effusion.

In children, especially, subsequent attacks may be prevented by giving sodium salicylate in small doses for one week out of each month, continuing this for at least a year. If the child has endocarditis with enlarged heart, a prolonged stay of at least six months in bed is advisable. Plenty of fresh air is needed and the patient should be kept amused with his toys and books, care being taken to avoid excitement. One year ago a child six years old was admitted to the hospital, suffering from rheumatism, with chorea, subcutaneous fibroid nodules, and an enlarged heart, the left border of which reached nearly to the anterior axillary line. He was kept in bed six months and treated as outlined above. At the end of that time, the chorea was well, the subcutaneous fibroid nodules had disappeared, and the left border of his heart was just outside of the mammary line.

In conclusion I wish to express my indebtedness to Dr Edward F. Cushing for many valuable suggestions in the preparation of this paper.



## Adult Flat Foot—Symptoms and Treatment

BY WALTER G. STERN

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Static flat-foot is a deformity characterized by the habitual position of the foot—in standing, walking or resting—in the exaggerated passive weight bearing posture. This latter—characterized by Annandale as the “Attitude of Rest”—is seen in a mechanic for instance, who, to enable himself to stand all day long performing some arduous manual task, assumes an attitude in which the weight of the body is no longer carried by the muscles, but by the bones and ligaments. The legs are slightly separated, the pelvis tilted forwards and upwards, the hip and knee joint locked by a slight outward rotation of the tibia and a slight flexion of the hip, knee and ankle, and the feet abducted and pronated—turned outward; all this tending to throw the center of gravity towards the head of the first metatarsal bone. In the foot itself the astragalus rotates downward and inward depressing its anterior and internal border until the movement is checked by the strong ligaments and the arch, whose highest point is the astragalonavicular joint, tends to flatten out and approach the ground. Now in flat-foot this inclination and tendency towards deformity in the “Attitude of Rest” has become an accomplished fact and is persisted in habitually, interfering greatly with the proper use of the foot as a lever in raising and propelling the body, for which function the feet normally turn inwards to bring the center of gravity more to the outside and to afford a broader fulcrum for the leverage of the tendo achilles.

It must not be understood that in the ordinary cases of flat-foot the longitudinal arch is simply flattened out by direct downward pressure and by elongation of the elastic ligaments and fascia; this occurs only in the severest and most exceptional cases. A typical flat-foot appears as though it were broken at the middle and the distal ends of each half had rotated about the head of the astragalus as a center and were thrown outwards and upwards while the broken arch with the astragalus head as its most prominent projection is thrown downward and inward.

A further discussion of the etiology and pathological anatomy is here purposely omitted as it would lead into disputed and more theoretic territory.

*Symptoms:* 'The most common and most important objective symptom is pain. It is felt most severely when the foot is used and has no especial localization. It may be felt in the bones of the weakened arch, the dorsum, in the heel, under the malleoli, beneath the tendo achilles, in the calf, knee, thighs, hip and even in the sacral and lumbar regions. The character of the foot pain is generally quite characteristic. After a night's rest the patients have generally forgotten the fact that they have feet, but the first few steps out of bed brings back the pain as intense and uncomfortable as ever. In a few moments, after a little brisk movement or a hot bath, the pain disappears leaving an uncomfortable sense of weakness in the feet which grows more severe as the patient walks about, until after several hours use the feet begin to hurt and continue to grow more painful as the day passes, and until the feet can be rested. The agony of this pain is in many cases unendurable and has caused men and women otherwise healthy to give up all active life. In other cases it is only the sudden change from sitting or resting to standing or walking, or some violent and unusual motion, such as jumping on or off a street car or running downstairs, which is painful. Early or milder cases may not suffer actual pain at all. There may be only a sense of weakness, strain or insecurity about the feet and ankles. "Weak Ankles" is the term applied by the laity. "Only after a long time may the patient become aware that he is accommodating his habits to his feet; he rides where once he walked, he sits where once he stood; . . . he complains that he cannot buy comfortable shoes—the shoe that was comfortable in the morning becomes uncomfortable at night and there is increasing discomfort from corns, bunions and other preëxisting deformities." (Whitman). The feet may be cold, cyanotic, numb, swollen and almost always perspiring. The ankle is frequently "turned out," sprains become common, the muscles of the calf become spastic, the toes may be dorsal flexed and the ball of the foot (metatarsal heads) painful.

It is well to remember that the severity of the subjective symptoms above described bears absolutely no relation to the severity of the objective symptoms and *vice versa*. It is a common occurrence to find patients whose sufferings are intense and yet upon careful examination find few or even no objective symptoms to account for them. It is in these cases that the diagnosis is so difficult and they are often dismissed with the

recommendation to take a course of baths at Mount Clemens or similar resorts.

Objectively, the gait of the patient has become a slipshod, shuffling one, the whole body, especially the shoulders, sway from side to side as in knock knee; the feet turn outward and are pronated so that in walking the patient first strikes his heel and then rolls off the foot at the inner side just at about the head of the first metatarsal. Calluses and bunions are common at this particular area. The knees are not fully extended in walking and never well flexed. Often a slight knock knee has developed. The shoes are bulged inward and downward at the arch and worn away at the inner side of the sole. The arch of the foot has sunken down to a greater or lesser degree from an almost imperceptible amount to a degree where the arch "digs a hole in the ground." The amount of the surface of the sole bearing against the ground is increased as can be shown by an imprint, and the range of motion of the foot is decreased in every direction, especially in supination, until in severe cases the foot becomes quite fixed in an abducted and pronated position. There are certain points about the foot which are usually quite tender upon pressure, the head of the astragalus, the scaphoid bone, the dorsum at its highest point and just below either malleolus. There may also be pain and tenderness beneath the tendo achilles.

According to the severity of the symptoms, authors have divided the progress of a flat foot into various degrees or stages:

1. Beginning cases; "Knickfuss"; Pes Valgus in its strict sense.
2. Inflammatory non-fixed cases.
3. Fixed or ankylosed flat foot.

Another classification is:

1. Cases in which arch only sinks on bearing weight.
2. Cases in which arch is constantly sunken.
3. Cases in which arch has become convex.
4. Fixation in third position.

*Diagnosis:* Where any of the typical objective symptoms are present or where typical flat-foot pains are complained of the diagnosis presents no difficulties. Only those cases in which there are atypical pains, no objective symptoms, or where these are out of all proportion to each other, or where the flat-foot is combined with or masked by other processes, can there be any difficulty in the diagnosis. It is always well to take a careful imprint of the bared foot, carrying the entire weight of the body,



upon paper prepared in various ways, so as not to overlook that class of cases where the arch has only become slightly weakened. (The simple imprint being all the overwhelming majority of physicians use, I will not mention the various methods and devices used for measuring, photographing, observing or recording the angle and the amount of the deformity.) Static flat-foot must be differentiated from various other kinds such as paralytic, inflammatory, spastic, myogenic, cicatricial, etc. It must be differentiated from rheumatism, arthritis urica and deformans, neuralgia, osteoporosis trauma, osteitis, periostitis, tubercular and gonorrheal arthritis.

The treatment must of course vary with the severity of the case and the static factors at work causing the flat-foot. Bad postures, habits and methods of walking and standing must be corrected. Improperly shaped shoes, narrow toes and high heels, etc.—an all too frequent cause—are forbidden. The patient is to begin gymnastic exercises, such as walking and standing on the outer edge of the foot, to improve the gait and to strengthen the weakened adductor and supinator muscles. Contractures and pain are overcome with hot baths and massage. Here vibratory massage, especially the “Thermovibrassage” lately devised and proposed by Dr F. W. Hitchins, of this city, are of greatest benefit.

For simple cases where the deformity and fixation are not too great, the wearing of a proper arch support alone suffices to overcome all of the subjective and most of the objective symptoms in a remarkably short time. The devising of such a support has been the subject of a great deal of experimentation on the part of the orthopedic profession. Almost every variety of substance has been used as a means of pressing the arch upwards and inwards and has met with success or failure depending upon the kind of case and the skill with which it has been applied. Shoes of leather with especially high instep, with the heel extended along the inner side to meet the sole, with the sole and heel raised along the inner border; insertions into the shoes of leather, paper, cork, felt, sponge, rubber, wood, celluloid, papermaché and wire, or combinations of these substances, have all been tried and have their advocates. But to my mind, a steel insole or plate made according to the methods first laid down by Whitman is the ideal.

Inasmuch as the proper fitting of such a plate is a matter of the nicest delicacy and strictest attention to detail, I may be

pardoned for a flight into the field of practical orthopedics and describe in detail how such an insole had best be made. The first requisite is a cast of the foot; this can be made by having the patient step into a box of setting plaster of Paris and withdraw the foot after the plaster has hardened. The mould is smeared with oil and filled with gauged plaster. This gives a cast of the foot as it appears bearing weight. The cast is then to be cut away to make a corrected foot. It is best not to approach too nearly to the normal at the first or even second shaping of the plate. This corrected cast can then be used as a pattern to make a babbit metal foot upon which the insole is to be swaged out of a thin piece of soft sheet steel. The insole is then trimmed and smoothed, heated to a cherry red and tempered in oil, converting it into spring steel. To protect the steel from rusting I have found that amalgamating, tinning, nickel plating, enameling and even coating with hard rubber inefficient, and now confine myself wholly to a coating of copper followed by a triple silver plating. This gives an efficient and durable protection against corrosion. German silver can be used in place of steel and need not be plated. Aluminum though light is brittle, easily corroded and has little durability. Celluloid has been used but has not found many followers. There is no advantage in covering these plates with leather. If they fit properly, the patient does not know he is wearing them and they do not tear the shoes. If you have great confidence and trust in your bracemaker, and I am glad to acknowledge here that I have in mine, you can leave the shaping of the insole to him and simply send him a paper imprint of the sole of the foot. The imprints I use are made as follows: a sheet of paper is coated with Tr. Ferri Chlor; the foot is lightly coated with a one percent solution of Pot. Ferrocyanide and the patient then steps on to the paper, leaving a very delicate tracing of the contact surface of the sole. From such a tracing the bracemaker can see how severe a case is to be dealt with and how much arching he is to give to the plate. But this is at best a risky procedure with the great majority of bracemakers.

As for the shape of the insole each man will have his own preference. I side with those who seek to correct the shape and distortion of the foot by an upward force obtained by stepping upon the raised and rounded surface of the insole, and would take issue with those who would make a high inside flange to press laterally upon the head of the astragalus, etc. This side

pressure is generally uncomfortable and the side flange has usually to be indented to obviate it, as in this plate which was made in Chicago. I can also not agree with those who would—as a routine measure—make flanges to fit on the outside of the foot so as to clasp the foot on either side to hold it together as it were. These outside flanges of course prevent the foot from slipping off the plate, but I prefer to hold the foot firmly upon the plate by the shape of the plate itself. This modification of Dr Royal Whitman's insole was first suggested to me by my bracemaker Mr. Charles Vrbsky. The plate is made the whole breadth of the foot and extends from the first to the fifth metatarsal heads backward to the end of the heel. The inside longitudinal arch is dished upwards as usual, with only a slight flange for comfort, the external longitudinal arch is also raised slightly but has no flange. For the purpose of letting the foot grasp the plate and also incidentally to elevate the transverse metatarsal arch, which is often sunken in these cases, the insole is dished upwards just back of where the heads of the second, third and fourth metatarsals will come. The area of the heel is dished out considerably so as to firmly but comfortably grasp it. Such a plate is self retaining, fits well into any shoe, and gives positive pressure both in raising the arch in supinating and adducting the foot. Such an insole is extremely comfortable to wear and gives a springy and easy gait. It is also well to remember that such braces must frequently be reshaped to accommodate the change in the shape of the foot which becomes progressively shorter and narrower and higher at the arches.

When a foot is totally broken down, very rigid, or extremely painful, it is best to forcibly overcorrect it with an osteoclast, encase it in a plaster cast and give it a perfect physiological rest for several weeks before constructing a plate. No anesthetic is necessary, morphin and scopolamine blunts the sensorium enough to allay any nervous dread, while a few drops of cocain injected into the astragaloscaphoid joint relieves all pain, relaxes the muscular rigidity and permits the previously locked joint to be opened. In children a rigid course of gymnastics should be insisted upon.

Tendon transplantation and shortening as well as an osseous advancement of the os calcis have been advocated as successful methods of overcoming this deformity. Their success is undoubted but their pertinence is very much in question except in the rarest cases.



# The Cleveland Medical Journal

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## EDITORIAL

### Extension of the Registration Area

Through the courtesy of the Bureau of the Census, we have received a brochure entitled "An Extension of the Registration Area for Births and Deaths. A Practical Example of Co-operative Census Methods as applied to the State of Pennsylvania." There is probably no movement of greater importance to the vital statistics of the United States than that organized by the Bureau of the Census in the attempt to establish a uniform system of registration and certification throughout the country.

The lax methods so largely in vogue hitherto, and still common in many states, unfortunately mar, in a large way, the value of vital statistics for the country as a whole. In 1900 there were but 11 states, including the District of Columbia, which had adopted the uniform system and were entitled to be classified as registration states. These 11 states represented, according to the census of 1900, a population of 19,960,742 individuals, a percentage of only 26.3 of the total population. There have been added as registration states during the year 1906, five additional states, representing a population of 9,916,482, which gives, including states previously admitted, a total population in the registration

area at the present time of 36,846,981 or a percentage of the total population of 48.5. There still remain, then, 34 states, including the Indian Territory, which have not adopted the regulation requirements as established by the Bureau of the Census. We regret to note that Ohio is included in this list of non-registration states. From the brochure referred to above, we are told that the experience of the Bureau of the Census since 1901 has shown the great importance and reliability of the essential principles of registration as formulated and expressed in the registration laws. Further that any state adopting these requirements in its legislature, and faithfully employing with adequate equipment and support the laws suggested, will undoubtedly secure sufficiently effective results to be entitled to admission as a registration state.

\* \* \* \* That any state that fails or neglects to provide for the essential requirement that experience has proved to be necessary, will, as numerous examples of imperfect legislation indicate, be unable to secure adequate returns.

The brochure referred to deals with the application of these methods as adopted by Pennsylvania; a state which has adopted in 1906 the requirements of the Bureau of the Census and is chosen as a practicable example of the thorough and effective application of these methods. Pennsylvania of all states recently adopting the recommendations of the Bureau of the Census has followed them most closely, and the important results attending the operation of the law have clearly proven the wisdom of exact and precise details as affording a clear guide for the administration and a source of authority in the enforcement of the law concerning each procedure of the actual work of registration.

There can be absolutely no question as to the value, and importance of the adoption of the laws as set forth by the Bureau of the Census, and it is sincerely to be hoped that the time is not far off when Ohio with its 4,000,000 population shall be included within the registration area. Any one at all interested, and we ought all as practicing physicians to be keenly alive to the importance of these laws, can secure the pamphlets bearing upon this question by addressing a letter direct to the Bureau of the Census, Washington, D. C.

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### The Condition of Our Streets

Not within the memory of man has the condition of our streets been what it is at the present time. It would seem as if all the enthusiasm of the administration had been diverted to the

propaganda of three cent fares, and the care of our streets pigeon-holed until that better day, when the Municipal Traction Company shall become a reality. At the present time, the city at large is suffering from dirty streets in a way which it has rarely, or never, suffered before. Disease germs of every sort are lurking upon our highways and byways, and, favored by the conditions which they find, are multiplying at a prodigious rate in anticipation of an energetic winter campaign.

With the modern prevalent use of automobiles, the dust problem is becoming more and more of a menace; the constant passing to and fro of the large tires even at the moderate speed allowed, in the congested districts, keeps the filth of our streets constantly stirred up, wafting it hither and yon and blowing overwhelming clouds into the nose, ears and mouth of the pitiable foot passengers and settling it in drifts as high as the second stories of our office buildings.

It is earnestly to be hoped that some relief can be found for the present deplorable condition and unless something is done actively, we may expect a marked increase of all those infections of the nasopharynx and respiratory tract so common at this season of the year. It would seem as if in the face of such a condition as that which exists at the present time, an occasional flushing of our busy thoroughfares by the fire department would be of real service in abating this unmitigated nuisance.

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## Department of Therapeutics

CONDUCTED BY J. B. McGEE, M. D.

### Glycosuria:

In the *New York Medical Journal* for September 29, A. C. Croftan discusses the use of drugs in diabetic glycosuria. The fact that there is not, so far as we know today, any proper antidiabetic remedy should not discourage us from using those drugs that we know to be capable of favorably affecting the general condition of the patient; counteracting or remedying complications or, above all, removing distressing or dangerous symptoms, chief among them the glycosuria. The most valuable drugs are opium and its alkaloids. By the aid of opium the last traces of sugar can without doubt often be removed from the urine in cases that do not become altogether sugar-free on a restricted diet. In severe cases, particularly when on a restricted diet, but still excreting some sugar, it often reduces the glycosuria, but it does not seem to have an appreciable effect upon the sugar excretion in diabetics who are eating carbohydrate foods. The effect of the drug can never be absolutely relied upon and its action is always uncertain, for occasionally it exercises no effect at all, even in the specified cases. Its effect is never permanent, for when its use is stopped, the glycosuria



reappears and increases rapidly, only to disappear again, everything else remaining equal, when the use of the opium is resumed. Many patients rapidly wear the drug out, so that the dose must be continuously increased to maintain its sugar effect, and herein lies its chief danger, especially if the patients know what they are taking. Croftan prefers the extract of opium, giving at least half a grain (0.03 gram) three or four times a day, preferably combined with the extract of belladonna  $\frac{1}{12}$  of a grain (0.005 gram) or atropin sulphate  $\frac{1}{100}$  of a grain. Next in importance to the opiates are the preparations of salicylic acid, given either as sodium salicylate in doses of 10 to 15 grains, or as aspirin in doses of five to 10 grains, several times a day, preferably after eating. These drugs should be given in large doses in order to do any good. They are distinctly contraindicated in diabetics suffering from gastric or renal disorders. Sumbul occasionally acts very well in diabetics in a manner similar to the salicylates, and sufficiently good effects have been obtained from its use to warrant its trial in every case that does not promptly yield to dietetic treatment. The drug may be given in five to 30 grain doses of the dry powder three or four times daily in capsules, gradually increasing until an ounce may be given daily. Alkalies are always useful in diabetes and Croftan gives indefinitely, in every case, 15 grains three or four times a day of sodic bicarbonate.

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**Sodium Citrate:** A. C. Cotton, in the *Journal A. M. A.*, for October 6, has found that infants will tolerate a larger proportion of milk in the feeding mixture when citrated than by any other modification known to him. Sodium citrate being very soluble in water the method of employment is simple, as follows: An aqueous solution is ordered containing from one to five grains to the dram; a quantity of this solution is furnished the mother or nurse with instructions to add to the baby's bottle immediately before feeding enough of the solution to represent one, two or even three grains of the citrate to each ounce of milk in the feeding mixture, according to the prescriber's idea of the requirements. The feeding mixtures may consist of varying dilutions of milk with water or gruel, with the addition of cane or milk sugar with or without cream. No alkalies are needed, the sodium citrate being a neutral salt. A most noticeable feature in this method of feeding is the large proportion of milk in the feeding mixture that the infant will tolerate without evidence of gastric disturbance, or the appearance of any considerable amount of undigested casein in the stools. One indication for the increase of the sodium citrate, even in some cases to as high as three grains to the ounce of milk, is vomiting of curds. Another indication is the appearance of curds in the stools, care being taken to exudate indigestion from excess or intolerance of fats. The duration of the administration of the sodium citrate, as well as the quantity employed, varies considerably in different cases, the purpose being to bring the baby's feeding up toward whole milk as rapidly as possible. As toleration is established, the amount of citrate is reduced to one, to one-half, and to one-fourth of a grain per ounce of milk until it can be discontinued. This method seems to allow a more rapid increase in the proportion of milk ingested than any other known to him, and he has found it practically harmless. He summarizes a series

of experiments as follows: (1) Sodium citrate in .25% or more retards, and very high percentages will inhibit, coagulation. (2) The presence of HCL hastens coagulation. (3) Diluting milk generally retards coagulation. (4) Gruels appear to have little or no effect in retarding coagulation more than water when the citrate is used. (5) The coagula of citrated milk are softer, smoother, and more jelly-like or more flocculent than those of milk not thus treated.

### Dionin:

In *Merck's Archives* for October, (from *Ophthalmic Record*), G. C. Savage observes that since dionin is neither a mydriatic nor a myotic, it has been hard to understand how it can help atropin to dilate the pupil in iritis, and also aid eserin in contracting the pupil in glaucoma. Recent observations on cases of iritis in which there was not only complete adhesion of the pupillary margin to the lens capsule, but the pupillary opening was also filled with plasma, and a solution of dionin was used five minutes after the instillation of the atropin, showed the plasma disappearing from day to day and at the end of one week it had entirely disappeared. The pupil dilated slowly, but in all there was practically complete dilatation. The disappearance of the plasma that could be seen was proof that the unseen plasma binding the iris to the capsule had also disappeared,—that is had been dissolved and carried out of the eye by way of the lymph channels. There is no room for doubting that dionin did this work. It is reasonable to conclude that dionin helps to dilate the pupil in iritis by its solvent effect on the plasma that would cause and maintain adhesions, and that it hurries out of the eye the dissolved plasma by opening the lymph channels. The relief of pain is another very desirable effect to the credit of dionin. In the treatment of iritis this drug is invaluable when used, of course, in conjunction with atropin. How dionin aids eserin in contracting the pupil in glaucoma and how some contraction might be effected by dionin alone, would not seem hard to understand. By opening the lymph channels, thus encouraging the outflow of the watery contents of the globe, it lessens intraocular pressure, this allowing a freer flow of nerve stimulation to the sphincter muscle of the iris.

### Acute Pleurisy:

In the *International Clinics* (Vol. III, 16th Series), A. A. Stevens states concerning the treatment of acute pleurisy, that no matter how mild the attack of pleurisy, rigid hygienic treatment must be insisted on from the beginning. The patient should go to bed and remain there until the fever has entirely disappeared, and the exudate shows signs of receding. The first indication for special treatment is usually to relieve the pain in the side. Morphine hypodermatically is useful but its effect, even in large doses, is temporary. A far more reliable remedy is the application of a few wet cups or leeches. Dry cupping is not nearly so effective. After the local bleeding, thin poultices may be applied to the chest if necessary. Strapping the affected side from mid spine to mid sternum with broad strips of adhesive plaster he has rarely found sufficient to relieve severe pain. Unfortunately we have no very potent means of checking the progress of the process, once it has begun; the only drug which seems to possess any special virtue being salicylic acid. He has found it chiefly useful in sthenic cases in robust

persons and accompanied by sharp pain and high fever. When such cases are seen early, sodium or ammonium salicylate in doses of a dram or a dram and a half (four to six grams) in 24 hours sometimes relieves the pain, lowers the temperature, and apparently exerts a modifying influence on the inflammatory process itself. In other cases, and these constitute the great majority, the drug is absolutely useless. After the acute symptoms have subsided the indications are to accomplish the removal of the fluid, to maintain nutrition, and to secure complete expansion of the lung. Medical treatment can do very little in absorbing the exudate. Counterirritation by means of flying blisters appears to have a good effect and in vigorous subjects the use of saline purgatives is sometimes of service. He has long since ceased to use potassic iodid as an absorbent. Irrespective of the period of the disease, paracentesis is urgently demanded. (1) When there is sufficient fluid in the pleural sac to excite severe dyspnea, cyanosis, persistent cough, or failing pulse; and (2) when the fluid reaches the level of the third rib, and there is marked displacement of neighboring organs. While the immediate prognosis of pleurisy is good, the remote prospect is always cause for anxiety. Open air living, an abundance of wholesome, easily digested food, tonics like iron and arsenic, and exercise to bring into play the muscles of respiration. In short, the after-treatment should be precisely that laid down for incipient tuberculosis.

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**Chronic Constipation:** In the *Medical Bulletin* for September, M. Clayton Thurston, after considering the dietetic, hygienic and mechanical means for treating chronic constipation, believes that drugs should play a subordinate part in the treatment and their use should be restricted to those periods when the bowel becomes unusually obstinate, and when a free movement is desired. The constant use of laxatives and purgatives tends to a confirmation of the condition, and strong purgatives in large doses only tend to render the bowel accustomed to their use, so that eventually enormous doses of the drastic purgatives are required to cause a movement. He asserts, however, that there are three drugs which are of the greatest value in this condition, yet rarely used by the profession, and they are of particular value when used in combination; they are hydrastis or golden seal, euonymus or wahoo, and chionanthus virginica or fringe tree. Hydrastis is the great glandular stimulant and euonymus and chionanthus are both valuable cholagogues and hepatic stimulants. These, in combination with nux vomica for its tonic effects on the motor system and with the aid of the digestive ferments, form a valuable combination which is often curative when strong purgative agents fail, and the treatment is based on rational therapeutics.

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**Sodium Citrate:** In the *Journal A. M. A.* for October 20, Jos. W. England considers the nature of the action of sodium citrate in modifying milk, and concludes that sodium citrate, which is a neutral salt, has no decomposing action on calcium casein in the cold, but that it does exert an important physical influence on the casein of milk; that when the citrated milk is brought in contact with the gastric juice, the sodium citrate is decomposed into sodium chlorid, and that



sodium chlorid has important physical, chemical and therapeutic properties in the digestion of the proteids of cow's milk more important probably than has hitherto been believed. Whether the free citric acid formed has any more important therapeutic value than the hydrochloric acid of the gastric juice (stimulated in production by the presence of the sodium chlorid) would seem to be very doubtful.

**Sodium Chlorid:** Alfred Gordon, in the *New York Medical Journal*, concludes concerning the salt-free treatment of epilepsy that the suppression of alimentary salt in the diet of epileptics has a favorable effect on epileptic seizures inasmuch as it reduces their frequency and severity. It is of the same advantage in the treatment of epilepsy as the strict observance of dietetic and hygienic rules. Both factors combined aid considerably in controlling and reducing the seizures. Reduction or complete removal of sodium chlorid from the diet gives better results when bromids are taken than while they are not taken. Dechlorization is certainly not a specific for epilepsy, but it adds a new element to our meager neurological armamentarium. It also adds value to our old conceptions of epilepsy as of a disease in which faulty chemical processes play an enormous role.

**Angina Pectoris:** Francis Hare, in the *Medical Record for* October 20, divides the treatment of angina pectoris into, (1) treatment of the paroxysm and (2) treatment preventive of future paroxysms. In the treatment of the paroxysms the inhalation of amyl nitrate still maintains its place as the most prompt and reliable means of relief in most cases. Where this fails morphin hypodermically, or chloroform inhalation will usually succeed. But in the absence of these drugs, the extensive application of heat to the surface, combined with hot drinks, will generally afford effectual relief. Preventive treatment resolves itself into the prevention of exaggerated peripheral vasoconstriction, continuous or recurrent. For this he pays little attention to the amount of proteids taken and none at all to the purin substances, but cuts down the carbohydrate and especially the saccharin carbohydrates and the fats. The success of the plan of systematically cauterizing the healthy septum nasi in cases of asthma leads him to believe the same method as valuable in angina. Iodid of potassium too is of value in preventing recurrence.

**Arbutin:** In the *Critic and Guide* for October, W. J. Robinson calls attention to arbutin, the glucosid of uva ursi as a remedy entirely too much neglected by the profession. He asserts that uva ursi will not accomplish the same thing, as such large doses would have to be administered that the inert and irritating matter would do more damage than the arbutin would do good. Arbutin never upsets the stomach and its action in weak bladders with imperfectly closing sphincters is quite marked. Chronic gonorrheas of long standing are frequently accompanied by dribbling of the urine, and in such cases arbutin should always be administered. As to the dose, some give it in small doses, one centigram (one sixth grain) every half hour or so. He prefers, however, to give it in larger doses, three to 12 centigrams (one half to two grains) every hour. He recommends a thorough and more general trial of the remedy.

## Academy of Medicine of Cleveland

The forty-second meeting of the Academy was held at 8 p. m., Friday, November 16th, 1906, in the auditorium of the Cleveland Medical Library. Program: The Importance of the Estimation of the Caloric Value of Infant Food, J. J. Thomas, M. D.; On the Determination of the Caloric Value of Modified Milk, G. W. Moorehouse, M. D.; Tuberculosis of the Peritoneum, Lewis S. McMurtry, M. D., Louisville, Ky.

CLYDE E. FORD, M. D., Secretary.

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### CLINICAL AND PATHOLOGICAL SECTION

The thirty-sixth regular meeting of the Clinical and Pathological Section was held at 8 p. m., Friday, November 2nd, 1906, at the Cleveland Medical Library. Program: Exhibition of Pathological Specimens of Synechia Cordis, C. F. Hoover, M. D.; Adult Flatfoot, its symptoms and treatment, Walter G. Stern, M. D.; A Clinical Study of 210 Cases of Acute Articular Rheumatism, John Phillips, M. D.; Bladder and Bowel Fistula following an Abdominal Section, with Report of a Case, Hunter Robb, M. D.

JUNIUS H. MCHENRY, M. D., Secretary.

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## Book Reviews

A Compend of Operative Gynecology, based on Lectures in the Course of operative gynecology on the cadaver at the New York Post-Graduate Medical School and Hospital, delivered by William Seaman Bainbridge, M. D., Adjunct Professor of Operative Gynecology on the Cadaver, New York Post-Graduate Medical School and Hospital; Consulting Gynecologist, St. Mary's Hospital, Jamaica, L. I., Consulting Gynecologist to St. Andrew's Convalescent Hospital, New York, etc. Compiled, with additional notes, in collaboration with Harold D. Mecker, M. D., Instructor of Operative Gynecology on the Cadaver, New York Post-Graduate Medical School and Hospital; Assistant, Department of Gynecology, Vanderbilt Clinic, College of Physicians and Surgeons, New York. The Grafton Press, New York.

This small compend of operative gynecology is based upon the lectures of Dr Wm. S. Bainbridge and is intended to serve as an aid to the student following the course in operative gynecology at the New York Post-Graduate Medical School and Hospital. It is necessarily incomplete but in so far as it is intended as a guide in the practical teaching of operative gynecology, this small volume should prove a distinct aid.

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A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa, by George Whitfield Overall, A. B., M. D., Chicago. Rowe Publishing Company, 1906.

This work is devoted to the consideration of the non-surgical treatment of diseases of the prostate gland and adnexa. It must be admitted that there is a vast amount of valuable help to be gleaned from the careful description of legitimate methods of procedure in a work of this character, and it is undoubtedly true in many instances that much good can be accomplished by topical measures. Dr Overall's suggestions in dealing with the neurosis are admirable. The appendix, devoted to the question of electro-physics and the use of the high frequency current, is a valuable

description of the practical application of this method of treatment. There are throughout a number of illustrations describing the methods of procedure and certain ingenious instruments for local treatment. To those interested in this subject we are glad to recommend this work.

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Superstition in Medicine, by Prof. Hugo Magnus; Authorized and Translated from the German, Edited by Dr. Julius L. Salinger, Late Assistant Professor of Clinical Medicine, Jefferson Medical College; Physician to the Philadelphia General Hospital. Published by Funk & Wagnalls Co., New York and London, 1905.

This little book, in a brief but excellent way, treats of a subject that should be a part of every medical man's knowledge. It should be read along with White's "Warfare of Science with Theology," Draper's "Conflict of Science and Religion," "Pasteur and Huxley's Biographies" and other books telling of the long hard up-hill fight science has had to make against superstition and ignorance.

"Faith and superstition are twin brothers," Magnus says. He defined Medical Superstition as follows: "Belief that the normal as well as the pathological manifestations of organic life may be explained and eventually treated without consideration of their physical nature, by means of supernatural agencies."

Magnus records many interesting examples of Medical Superstition: The Greeks believed that Apollo invented the art of healing, and if his time permitted he occasionally lent a hand when difficulties beset the entrance of a young mortal into this world. As a rule, however, it was the duty of Aphrodite to attend to such cases, indeed she was responsible for everything that referred to love, no matter whether it was the esthetic or the pathological part of the passion.

The Priesthood fought hard against the physico-mechanical contemplation of the world. The Theistic theory of life which they represented was forced to battle, for they had much to lose from the ascendancy of a theory of life that reckoned only with natural forces. These servants of Heaven claimed that they could regulate the eternal processes of matter with its becoming, being, and passing away, quite as certainly as they believed that their eyes were able to survey the course of time in the past, present and future.

The Romans believed in magic and dream in the treatment of their sick. Marcus Aurelius, even, relates that when in Caiete, the gods in a dream prescribed a remedy for the hemorrhagic cough and vertigo from which he was suffering. Even the great Galen was a believer in magic. As a few examples of the medicine of the magicians we have: "Whoever, when he sees a shooting star, soon afterwards pours a little vinegar upon the hinge of a door, is sure to be rid of his corns." "To cure headache, tie the rope that hanged a criminal around the forehead." "A person who has an attack of colic may take the feces of a wolf, which, if possible, should contain small particles of bones, enclose them in a small tube and wear this armlet on the right arm, thigh or hip." We must not blame Galen and others, for as no human being is able to jump out of his skin, so is he unable to get far beyond the intellectual development of his time.

"A miracle could not be perceived in its full modern sense until it was



realized that the course of all natural phenomena was nothing but the expression of eternal and changeless laws."

This is contrary to the teachings of the Bible. The Bible may be called upon to prove almost anything, and certainly the Christian scientists, religionists and others with nonjudicial minds have good authority in the Bible for a belief in prayer healing the sick.

Science declares that work is the only prayer that is answered. And yet we cannot ask that science should suddenly lay aside her religious cloak, checkered as it is with theological theories and many groundless superstitions.

This splendid little book of Magnus' should be read by all medical men. Those wishing to go deeper into the subject will be delighted with his extensive bibliography.

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Abbott's Alkaloidal Digest, a Brief; Therapeutics with Clinical Applications. Essential Success—Points in the Treatment of the Sick. By W. C. Abbott, M. D. The Clinic Publishing Co., Chicago.

This small volume devoted to a description of the therapeutics of some of the principal alkaloids, is divided into two parts, the first being devoted to therapeutics, which contains brief notes of the therapeutic action of the various active principles described and is alphabetically arranged. Part two is devoted to a consideration of suggestions of the clinical application of these alkaloidal remedies. For those who may use these products, this small volume should prove of help. A brief list is included of the various products of the Abbott Alkaloidal Company.

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A Manual of Otology. By Gorham Bacon, A. B., M. D., Professor of Otology in the College of Physicians and Surgeons, Columbia University, New York; Aural Surgeon, New York Eye and Ear Infirmary. With an introductory chapter by Clarence John Blake, M. D., Professor of Otology in Harvard University. Fourth edition, revised and enlarged. Handsome 12mo volume of 485 pages, with 134 illustrations and 11 plates. Price, cloth, \$2.25 net. Lea Brothers & Co., Publishers, New York and Philadelphia, 1906.

It is but three years ago that we noted in this place the appearance of a third edition of Bacon's Manual of Otology. The demand for a fourth edition is evidence of the favor with which this work has been received, and in the preparation of this last edition there has been apparently a very thorough revision. The work is intended primarily as a students' text-book and is an admirable volume for such use. A number of new illustrations have been included, and among the new topics considered we note the subject of osteomyelitis and the consideration of suppurative inflammation of the labyrinth. A short appendix is included giving the description of technic of the preparation of smears and of making bacteriologic cultures and inoculation experiments. This is an admirable volume and it is to be highly commended to all students and to those wishing a clear description within the compass of a small text-book.

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The Eye and Nervous System, Their Diagnostic Relations, by various authors, edited by Wm. Campbell Posey, A. B., M. D., Professor of Ophthalmology in the Philadelphia Polyclinic; Surgeon to the Wills

Eye Hospital; Ophthalmologist to the Pennsylvania Epileptic Hospital and Colony Farm, and Consulting Ophthalmologist to the State Hospital for the Insane at Norristown, and William G. Spiller, M. D., Professor of Neuropathology and Associate Professor of Neurology in the University of Pennsylvania; Clinical Professor of Nervous Diseases in the Woman's Medical College of Pennsylvania; Professor of Nervous Diseases in the Philadelphia Polyclinic; President of the American Neurological Association (1905). Illustrated. Philadelphia and London, J. B. Lippincott Company.

This volume of almost 1000 pages will prove a valuable addition to the library of every Ophthalmologist and every Neurologist, and will also be useful as a book of reference to the general Practitioner. While several German and one French work upon this subject have been published, there is no book in the English language covering the same ground. The volume is therefore especially welcome and is one of the few illustrations of a new medical work supplying a real want. While edited by Drs Posey and Spiller, it consists of a series of excellent and valuable monographs by well known authors and authorities, who are well fitted to treat the subjects assigned to them. A list of the writers would in itself be a guarantee of the character of the work. While there may be some little over-lapping, as usually happens in all so called systems or books thus written by a number of men, where this gives a view of the subject from the Ophthalmologist's standpoint and from the Neurologist's point of view, the duplication is an advantage rather than a detriment to the work. The volume is freely illustrated throughout with diagrammatic drawings, photographs and colored lithographs and the publishers part has been well done. The book can be most heartily commended.

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Genito-Urinary Diseases and Syphilis. By Henry H. Morton, M. D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island and Kings County Hospitals, and the Polhemus Memorial Clinic. Illustrated with 158 half-tone and photo-engravings and 7 full-page colored plates. Second Edition, Revised and Enlarged. Royal Octavo, 500 pages. Bound in Extra Cloth. Price, \$4.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

This work of Dr Morton's is a very satisfactory presentation of the subjects treated. The first two thirds of the work are devoted to the consideration of genito-urinary diseases, and the arrangement of the text, by the use of special headings and heavy type, emphasizes the important points and adds much to the usefulness of the volume. The author gives in detail the special methods of treatment and states in a clear way the routine procedures involved in the handling of the different conditions met with in this practice. The text is illustrated throughout by admirable diagrammatic and half tone plates. The section devoted to the treatment of syphilis is written in the same clear-cut descriptive way and though not in any sense an exhaustive reference, contains all that is important with the added great virtue of accessibility. A very valuable appendix contains a list of the instruments necessary for office use and a detailed statement of laboratory technic, including the latest methods for detection of the *spirochæta pallida*. A sufficiently exhaustive index

concludes the volume, which we heartily recommend as an admirable text-book for the student of medicine and to the physician who desires a volume to which he can turn with the feeling that he can find the help which he seeks.

### Books Received

The Diseases of Children, Medical and Surgical, by Henry Ashby, M. D., Lond., F. R. C. P., Physician to the Manchester Children's Hospital, Lecturer and Examiner in Diseases of Children in the Victoria University, Hon. Member of the American Pediatric Society, formerly Lecturer on Physiology in the Owens College, and G. A. Wright, B. A., M. B. Oxon., F. R. C. S. Eng., Surgeon to the Manchester Royal Infirmary, Consulting Surgeon to the Children's Hospital, Professor of Surgery in the Victoria University, formerly Examiner in Surgery in the University of Oxford, Corresponding Member of the American Orthopedic Association. Fifth edition. Thoroughly revised. Longmans, Green & Co., 39 Paternoster Row, London, New York and Bombay. 1905.

The Practical Medicine Series, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post Graduate Medical School. Volume VII, Pediatrics, edited by Isaac A. Abt, M. D., Assistant Professor of Medicine (Pediatrics Department), Rush Medical College; Orthopedic Surgery, edited by John Ridlon, A. M., M. D., Professor of Orthopedic Surgery, Northwestern University Medical School, with the collaboration of Gilbert L. Bailey, M. D., Instructor in Orthopedic Surgery, College of Physicians and Surgeons. Series 1906. Year Book Pub.

A Syllabus of Materia Medica, compiled by Warren Coleman, M. D., Professor of Clinical Medicine and Instructor in Materia Medica and Therapeutics in Cornell University Medical College; Assistant Visiting Physician to Bellevue Hospital. Third edition. Revised to conform to the Eighth Decennial Revision of the U. S. P. New York. William Wood & Co., 1906.

Diseases of the Stomach, A Text-Book for Practitioners and Students, by Max Einhorn, M. D., Professor of Clinical Medicine at the New York Post Graduate Medical School and Hospital; Visiting Physician to the German Hospital. Fourth revised edition. New York. William Wood & Co., 1906.

Pathology, General and Special, A Manual for Students and Practitioners, by John Stenhouse, M. A., B. Sc., Edin., M. B., Tor.; formerly Demonstrator of Pathology, University of Toronto, Toronto, Canada and John Ferguson, M. A., M. D., Tor., Senior Physician, Western Hospital; formerly Senior Demonstrator of Anatomy, University of Toronto, Toronto, Can. Series edited by Victor Cox Pedersen, A. M., M. D., Lecturer in Surgery at the New York Polyclinic Medical School and Hospital; Genito-Urinary Surgeon to the Out-Patient Departments of the New York and the Hudson Street Hospital; Anesthetist to the Roosevelt Hospital. Illustrated with 16 engravings and a colored plate. Lea Brothers & Co., Philadelphia and New York.

Golden Rules of Pediatrics, by John Zahorsky, A. B., M. D., Clinical Professor of Pediatrics, Washington University Medical Department, St. Louis; Ex-president of the Bethesda Pediatric Society; Attending Physician to the Bethesda Foundlings' Home; Member of the American Medical Association and of the St. Louis Academy of Science; Editor of the St. Louis Courier of Medicine; Author of "Baby Incubators," etc., with an introduction by E. W. Saunders, M. D., Professor of Diseases of Children and Clinical Midwifery, Washington University, etc. St. Louis. The C. V. Mosby Medical Book Co., 1906.



A Treatise on Surgery. In two volumes. By George R. Fowler, M. D., Examiner in Surgery, Board of Medical Examiners of the Regents of the University of the State of New York; Emeritus Professor of Surgery in the New York Polyclinic, etc. Two imperial octavos of 725 pages each, with 888 text illustrations and 4 colored plates, all original. Philadelphia and London. W. B. Saunders Company, 1906. Per set, cloth, \$15.00 net; half morocco, \$17.00 net.

Studies in the Psychology of Sex—Erotic Symbolism, the Mechanism of Detumescence, the Psychic State of Pregnancy. By Havelock Ellis.  $6\frac{3}{8} \times 8\frac{7}{8}$  inches. Pages x-285. Extra Cloth, \$2.00, net. Sold only by subscription to Physicians, Lawyers, and Scientists. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

Obstetrics for Nurses. By Joseph B. DeLee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Second Revised Edition. 12mo of 510 pages, fully illustrated. Philadelphia and London. W. B. Saunders Company, 1906. Cloth, \$2.50 net.

Diet in Health and Disease. By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Second Revised Edition. Octavo of 728 pages. Philadelphia and London. W. B. Saunders Company, 1906. Cloth, \$4.00 net; Half Morocco, \$5.00 net.

Prevalent Diseases of the Eye. By Samuel Theobald, M. D., Clinical Professor of Ophthalmology and Otology, Johns Hopkins University. Octavo of 551 pages, with 219 text-illustrations, and 10 colored plates. Philadelphia and London. W. B. Saunders Company, 1906. Cloth, \$4.50 net; Half Morocco, \$5.50 net.

Dorland's American Illustrated Medical Dictionary. A new and complete dictionary of the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and kindred branches; with over 100 new and elaborate tables and many handsome illustrations. Fourth Revised Edition. By W. A. Newman Dorland, M. D. Large octavo, over 850 pages, with 2000 new terms. Philadelphia and London. W. B. Saunders Company, 1906. Flexible leather, \$4.50 net; indexed, \$5.00 net.

A Text-Book of the Practice of Medicine. By James M. Anders, M. D., Ph. D., LL. D., Professor of Medicine and of Clinical Medicine at the Medico-Chirurgical College, Philadelphia. Seventh edition, revised and enlarged. Octavo of 1297 pages, fully illustrated. Philadelphia and London. W. B. Saunders & Company, 1905. Cloth, \$5.50 net; Sheep or Half Morocco, \$6.50 net.

A Text-Book of Obstetrics. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Fifth Revised Edition. Octavo of 915 pages, with 753 illustrations, 39 of them in colors. Philadelphia and London. W. B. Saunders Company, 1906. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

Nervous and Mental Diseases. By Archibald Church, M. D., Professor of Nervous and Mental Diseases and Medical Jurisprudence in Northwestern University Medical School, Chicago; and Frederick Peterson, M. D., President of the State Commission in Lunacy, New York; Clinical Professor of Neurology and Psychiatry, Columbia University. Fifth edition, revised and enlarged. Octavo volume of 937 pages, with 341 illustrations. Philadelphia and London. W. B. Saunders & Company, 1905. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

A Manual of Diseases of Infants and Children. By John Ruhrah, M. D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, Baltimore. 12mo volume of 404 pages, fully illustrated. Philadelphia and London. W. B. Saunders & Company, 1905. Flexible leather, \$2.00 net.

## Correspondence

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### To the Medical Profession of Northern Ohio

The medical profession of San Francisco lost its medical library, the San Francisco County Society Medical Library, in the fire last spring. Most of the physicians also lost whatever private libraries they had succeeded in collecting. A committee (named below) has been appointed by the American Medical Association and by the Association of American Physicians, to collect and send books to San Francisco, both for the library and for private individuals when duplicate copies are sent on.

Will you send to the Cleveland Medical Library, 2318 Prospect Ave. S.E., any medical books of value or bound volumes of Journals which you can spare? Fairly recent editions of standard text books, foreign text books or bound journals (French, German and Italian), hospital reports, monographs of all sorts, books on special subjects, old classics (*e. g.*, Trousseau, Charcot), and the Sydenham Society publications are especially desired.

Acknowledgement of all that is received will be made through the medical journals, and the books will be packed and shipped as promptly as possible.

Signed,

CHARLES L. DANA, *Chairman*,  
New York City.

FRANK BILLINGS, Chicago.

E. BATES BLOCK, Atlanta.

J. A. CAPPS, Chicago.

T. D. COLEMAN, Augusta Ga.

GEORGE W. CRILE, Cleveland.

W. E. FISCHER, St. Louis.

F. FORCHHEIMER, Cincinnati.

CHARLES L. GREEN, St. Paul.

ARTHUR T. HOLBROOK, Milwaukee.

GEO. M. KOBER, Washington.

LAWRENCE LITCHFIELD, Pittsburg.

RUDOLPH MATAS, New Orleans.

H. C. MOFFITT, San Francisco.

JOHN H. MUSSEY, Philadelphia.

WILLIAM OSLER, Oxford, England.

HENRY SEWALL, Denver.

C. G. STOCKTON, Buffalo.

W. S. THAYER, Baltimore.

R. C. CABOT, Boston, Secretary.

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## Medical News

E. Brinkerhoff, of Youngstown, has moved to Bristolville.

C. A. Garrison, of Ravenna, has moved his family to Kent, O.

J. P. Esch and wife, of Huron, have left Ohio for their winter home in Florida.

L. A. Connell, of Malvern, is seriously ill with septicemia from the result of a gun shot wound.

J. S. McClellan, of Baltimore, is home from New York, where he has been taking a post-graduate course.

W. H. Humphrey, of Yellow Springs, is taking a post-graduate course at the Johns Hopkins Hospital.

L. A. Bryan, of Lancaster, is in Salt Lake City, where he has entered a college taking a post-graduate course.

Belle J. Allen, of Bellefontaine, has received an appointment for Baroda, India, in the Butler Memorial Hospital.

Chas. A. Martin, who has been located in Bristolville for more than a year, has removed to North Bloomfield and will practice medicine.

Charles Ring, of Urbana, has been called to an important position upon a research commission in New York City. He will probably make this his home.

C. A. Schaeffer, of Hamilton, recently went to West Baden and Hot Springs to recover from an attack of blood poisoning, the result of being cut in the hand at an autopsy.

W. E. Shrontz, former professor in the Indiana Medical University, has returned to his home in Martinsburg where he and his father, J. F. Shrontz, will enter business together.

The Perry County Medical Society met on November 15, James Miller, president, in the chair. W. F. Croft, of Corning, read a paper on "Nephritis" and Dr Dennison, of Crooksville, gave an instructive talk on "Appendicitis."

The Fairfield Medical Society held its regular monthly meeting on the afternoon of November 20, with a large attendance. J. Frances Trout read a paper on "The Dosage of Antitoxin" and Dr Farley read a paper on "Hemorrhoids."

The Ottawa County Medical Association held a meeting at Oak Harbor, November 14, with the following present: Drs Heller, Langholz, and Huyck, of Oak Harbor; Dr Drumgold, of Elmore; Dr Barringer, of Rocky Ridge; Dr Pool, of Port Clinton; Dr Kilmer, of Williston; Dr Ingraham, of Curtice. Dr Deaton, of Toledo, Surgeon in the U. S. Navy, read a paper before the Association.

For the enlargement and betterment of the Oklahoma Medical News-Journal. Beginning with the January, 1907, issue, the Oklahoma Medical News-Journal will have a new Editor, Y. E. Colville, B. S., M. D., of Chattanooga, Tenn. Dr Colville has bought a half interest in the Journal and will devote his entire time to the editorial department, while Dr Phelan will be the business manager. In this way the Journal will be greatly benefited and enlarged, and will be a great deal better Journal for the profession than heretofore.

Dr George Thomas Palmer, who, for the past five years, has edited The Chicago Clinic and Pure Water Journal, has voluntarily severed his connection with the Illinois State Board of Health, in which he held the position of Assistant Secretary, to devote his time and attention to the interests of his Journal. For some years The Clinic has devoted considerable attention to climatology and mineral water therapy, being the only publication in the United States dealing with the latter subject. These special departments will be especially developed during the coming year. In his connection with the Illinois State Board of Health, Dr Palmer has been actively engaged in sanitary and public health work and a new department of State Medicine, edited by him, will be a feature in the Clinic.

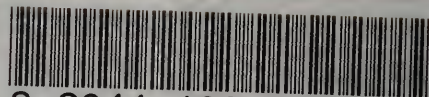
The third annual meeting of the Seventh Councilor District of the Ohio State Medical Association was held sometime in November. The district is composed of the counties of Columbiana, Carroll, Coshoc-ton, Belmont, Harrison, Jefferson, Monroe and Tuscarawas, and representatives were present from all these counties. The program consisted of papers and addresses on important subjects. Several of the State officers and prominent physicians from outside the district were in attendance and took part in the exercises. During the afternoon, Dr E. B. Shanley, of New Philadelphia, was selected president, and Dr Morris, of Lisbon, was made secretary. There were four district councilors present and the entire program was carried out. The meeting closed with a reception and banquet in the evening. The menu was a fine one. Dr J. C. M. Floyd, of Steubenville, was toastmaster, and at the close of the dinner announced the toasts and introduced the speakers in their order



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